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21st ANNUAL REPORT

FOR THE FISCAL YEAR
ENDED MARCH 31st, 1970



Department of Lands & Forests
of the Province of Alberta

TWENTY-FIRST
ANNUAL REPORT

OF THE
DEPARTMENT OF LANDS AND FORESTS
OF THE
PROVINCE OF ALBERTA

FOR THE
FISCAL YEAR ENDED MARCH 31st

1970



EDMONTON:
PRINTED BY L.S. WALL, QUEEN'S PRINTER
1970

TO THE HONOURABLE GRANT MacEWAN
Lieutenant-Governor of the Province of Alberta

SIR:

I have the honour to submit the Report of the Department of Lands and Forests for the fiscal year ended March 31st, 1970.

I have the honour, to be, Sir,

Your obedient servant,

DR. J. DONOVAN ROSS

Minister of Lands and Forests

Edmonton, December 15th, 1970.

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DEPARTMENT OF LANDS AND FORESTS

Dr. J. Donovan Ross	Minister of Lands and Forests
Dr. V.A. Wood	Deputy Minister of Lands and Forests
F.F. Pawlowski	Departmental Solicitor
D.S. Lawson	Director of Lands
R.G. Steele	Director of Forestry
H.M. Ryhanen	Head, Administration Branch
F.W. McDougall	Head, Timber Management Branch
S.R. Hughes	Head, Forest Protection Branch
J.F. Hogan	Head, Construction and Maintenance Branch
G.M. Smart	Head, Land Use Branch
P.J. Murphy	Head, Forestry Training Branch
E.P. Shaver	Director of Provincial Parks
C.H. Harvie	Provincial Parks Planner
Dr. S.B. Smith	Director of Fish and Wildlife
C.G. Campbell	Fish and Wildlife Administrator
M.J. Paetz	Chief Fishery Biologist
G.R. Kerr	Chief Wildlife Biologist
T.A. Drinkwater	Director, Technical Division
A. McCallum	Administrative Accountant
H.E. Bennett	Registrar
C.E. Haglund	Resources Information Officer
D.E. Massig	Personnel Officer

EASTERN ROCKIES FOREST CONSERVATION BOARD

J.R.H. Hall	Chairman
A.T. Baker	Member

REPORT
of the
DEPARTMENT OF LANDS AND FORESTS
1969 - 1970

HONOURABLE DR. J. DONOVAN ROSS,
Minister of Lands and Forests.

SIR:

I have the honour to submit the annual report of the Department of Lands and Forests for the fiscal year ended March 31st, 1970.

Respectfully submitted,

V.A. WOOD,

Deputy Minister.

Edmonton, December 15th, 1970.

PUBLIC LAND ADMINISTRATION

REPORT OF THE DIRECTOR OF LANDS *D.S. LAWSON*

In August 1969, the farm adjustment program was extended to include Census District No. 15 (Peace River region). Nine farm adjustment committees were established to serve this area bringing the total number of such committees operating in the province to 14. The new committees are based at Valleyview, Grande Prairie, Spirit River, Fairview, Manning, Fort Vermilion and High Prairie.

During the period under review, new policies were implemented to assist orderly rural adjustment. The most significant of these was the removal of the priority of homestead sale applications over other applications for agricultural dispositions. As a result of this policy change any number of homestead sale or other applications for agricultural use may be accepted from eligible applicants for the same land. All such applications are referred to the appropriate farm adjustment committee for review and recommendation to the Minister. This procedure affords the committee an opportunity of interviewing all applicants and of recommending the allocation of public land in such a manner as to create units with a better economic potential.

HOMESTEAD SALES

No new areas were opened for homestead or other agricultural settlement during the year. With the prevailing agricultural economic situation and the decline in applications for new contracts in recent years, the present lands available for homesteading purposes are sufficient to meet the requirements. Although there was a marked decline in the number of applications for new homestead sales, applications for title to existing homesteads continued at a fairly high rate.

Homestead sales are available only in the Peace River Area.

SALES AND CULTIVATION LEASES

During the year the Sales Section moved into a new concept of sales and leases, under the Farm Consolidation Regulations. This provides for a deferment of the payment of principal and also permits leases to be issued which may include an option to purchase. This latter aspect gives farm adjustment committees time to assess an applicant's progress, intentions and development. The deferment of payments assist the farmer by leaving him more available capital to develop the land to a productive stage. Before recommendations of this nature are made, farm adjustment committees investigate the need for such assistance, and vary their recommendations in accordance with particular circumstances.

The following indicates the monies collected during the year from public and tax recovery sales:

DEPARTMENT OF LANDS AND FORESTS

New Sales	Principal	Interest
Agricultural Farm Sales	\$ 154,920.83	\$ 5,172.76
Tax Recovery Agricultural Farm Sales	Nil	Nil
Public Land Sales	\$ 173,539.43	\$ 3,330.39
Tax Recovery Sales	\$ 45.75	Nil
Farm Consolidation Sales	\$ 38,603.91 *	\$ 2,110.32

* Includes money received in the previous fiscal year but applied to new sales issued during the 1969-70 fiscal year.

The total collections made on all sales during the fiscal year, including existing and new sales were:

	Principal	Interest
Agricultural Farm Sales	\$ 384,222.09	\$ 87,630.15
Tax Recovery Agricultural Farm Sales	\$ 3,619.90	\$ 850.00
Public Land Sales	\$ 454,165.16	\$ 62,221.96
Tax Recovery Sales	\$ 3,911.51	\$ 837.44
Farm Consolidation Sales	\$ 34,140.13	\$ 3,585.79

A total of 38 parcels of land were offered for sale by public auction of which 37 were sold. The highest price per acre received was \$34.00 at a sale held at Grande Prairie. It should be noted in this regard however, that this was also the upset price per acre.

The average price per acre received at the auction sales of 1969-70 was \$9.26 per acre.

The total assessment of lands under cultivation lease, exclusive of clearing project leases, was \$1,115,506.00 while the amount of money paid out in lieu of taxes on such cultivation leases was \$78,058.24.

SPECIAL LAND USE

The past year was highlighted by a great upsurge in coal exploration. Numerous programs were approved and most of these are located in the foothills and mountain areas of the province. The demand for surface leases required for mining purposes has not shown any great increase, but it is anticipated that demand for leases for coal mining sites will increase during the next fiscal year.

Oil activity remained high and approximately the same number of leases were issued for this purpose as during the previous fiscal year. With the drop in sulphur prices, there was a great decrease in exploration for elemental sulphur.

Demands continued high for recreational lands particularly recreational cottage subdivisions. Two new subdivisions were advertised, one at Capt. Ayre Lake which is located in the Provost area and the other at Burnstick Lake near Caroline. The demand for lots at Capt. Ayre Lake was less than expected. In the case of Burnstick Lake, twenty-nine lots were offered for lease and one hundred and twenty-five people were interested in acquiring leases. As a result of the unsatisfied demand, the balance of Burnstick Lake Subdivision was developed and will be offered for lease during the next fiscal year.

Numerous meetings were held with companies interested in resource development and also with other Government agencies to co-ordinate resource development.

During this fiscal year, there were nine hundred and fifty-five miscellaneous permits issued.

During this fiscal year, there was an apparent demand for commercial hunting and fishing lodge sites and as a result, areas were selected and advertised for development. However, extensive advertisement did not result in any applications. The policy relating to the leasing of public lands for hunting and fishing lodge sites restricts their issuance to Canadian citizens or Canadian companies in which the majority of shares are held by Canadian citizens.

GRAZING

The demand for grazing privileges on available public land continued at a steady rate during 1969 and early 1970. This demand was mainly due to increased prices of beef and the fact that farmers were not able to dispose of a large surplus of wheat. The open grassland areas of Alberta are fully utilized and therefore the wooded areas of Alberta provide the only new native grazing available.

To encourage the development and improvement of these wooded areas, the Grazing Lease Improvement Regulations authorize financial assistance for grazing lessees wishing to convert brush covered public lands to improved pasture. Fifty-one applications for such assistance received from individuals holding grazing leases were approved in the 1969-70 fiscal year.

Community pasture organizations (grazing associations) leasing grazing land from the department may obtain financial assistance for similar range improvement projects through an ARDA program. Under this program, the Canada and Alberta Governments pay two-thirds and the community pasture organization pays one-third of the cost of the improvement project. Payments to six grazing associations were made this year.

Grazing conditions in 1969 were generally fair to good in southern, central and northeastern Alberta. Conditions were good over most of the Peace River region south of the Peace River, poor to fair over most of the Peace River region north of the river, but fair to good in the Fort Vermilion - High Level districts.

The range survey prepared rangeland inventories and management plans for four large community pastures and grazing reserves in 1969. Native forage production weights were obtained from several representative sites in the grassland areas of southern and central Alberta. Five more benchmarks were added to the network of 30 or more benchmarks established in 1968 on typical tracts of good to excellent condition native ranges, representative of the more common range types found in southern and south central Alberta.

Members of the Grazing Field Staff assisted various members of the division's Appraisal Section in the identification of native plants and in the determination of grazing capacity.

The Grazing Lease Administration personnel continued a program started in 1968 to encourage holders of grazing permits to convert their permits to long term leases on land which was inspected and found to be best suited for grazing. The program of consolidating two or more leases held by the same lessee continued.

During 1969 the sale of farms and ranches and the subsequent assignment of grazing leases continued at a steady rate, especially in the Medicine Hat district. Towards the end of 1969, there was a tightening up of financial assistance from credit agencies which caused a decrease of farm and ranch sales.

The Grazing Lease Assignment Regulations were amended in 1969 to permit a lessee to assign a part of his interest in his grazing lease to his immediate family for a nominal assignment fee. The assignment of a lease to a family corporation in which all of the issued shares are held by the assignor and members of his immediate family is also permitted for the nominal fee.

On January 1st, 1970, holders of public lands under grazing lease or permit become responsible for the payment of the regular municipal taxes levied by the counties, municipal districts or the Department of Municipal Affairs. This increased the total rental and taxes paid for public lands held under grazing lease or permit in most settled areas of the province.

A record number of applications for cutting wild hay on vacant public lands were received and processed. Ten wild horse roundup Letters of Appointment were in effect during the 1969-70 fiscal year.

The 1969 rental and "taxes" for grazing leases and grazing permits were calculated on the same basis as in 1968. The Public Lands Act, 1966, provides that each grazing lessee and permittee shall pay as annual rental and taxes such percentage of the forage value of the land contained in the grazing lease or permit as is set by the Lieutenant-Governor in Council.

The formula for determining the forage value of an acre held under a grazing disposition is as follows:

$$\frac{250 \times P}{cc}$$

"250" represents the estimated gain in pounds of beef, "P" represents the weighted average price of beef on the Calgary market, not including choice grades, and "c" represents the carrying capacity expressed in the number of acres required to graze one animal unit (1000 pound cow with calf under 6 months of age or their equivalent) for 12 months.

The average price of beef for the months of July to December, 1968 was 24.02 cents per pound as compared to 23.72 cents per pound for the same period in 1967.

The percentage of forage values used to determine the rental and taxes payable were fixed by Order-in-Council in 1962. These percentages are 20% for southern Alberta, 16 2/3% for central Alberta and 12½% for northern Alberta. The combined rental and tax charges for grazing leases for the period from January 1st to December 31st, 1969 and for grazing permits for the period from April 1st, 1969 to March 31st, 1970 were set for each district as follows:

RENTAL AND TAXES PER ACRE FOR 1969

Carrying Capacity Zone	A	B	C
	Southern District 20%	Central District 16 2/3%	Northern District 12½%
24	50¢	41¾¢	31¼¢
32	37½¢	31¼¢	23½¢
40	30¢	25¢	18¾¢
50	24¢	20¢	15¢
60	20¢	16¾¢	12½¢

1969 HEAD TAX GRAZING RENTAL

For 1969, the rental for grazing unoccupied public lands was established as follows:

Grazing District A — (Southern District): \$1.00 per animal unit month

Grazing District B — (Central District): \$.80 per animal unit month

Grazing District C — (Northern District): \$.60 per animal unit month

GRAZING ASSOCIATION LEASES

Association		Map Location	Acreage	No. of Members	Head of Stock
1.	Barnwell Grazing Association	63	3,127.05	35	255
2.	Basin Valley Grazing Association	74	1,713.56	10	297
3.	Bear Canyon Grazing Association	35	1,433.5	7	39
4.	Beaver Valley Grazing Association	67	3,375.66	8	187
5.	Big 4 Lease Association	14	3,035.0	6	274
6.	Blackfoot Grazing Association	28	24,550.89	51	996
7.	Blue Field Grazing Association	6	11,726.14	12	575

	Association	Map Location	Acreage	No. of Members	Head of Stock
8.	Boon Creek Cattle Association	82	7,149.62	7	278
9.	Boundary Creek Grazing Association	3	636.84	7	120
10.	B.T. Grazing Co-operative Ltd.	17	26,234.99	33	846
11.	Buffalo Park Grazing Association	84	24,915.40	36	2,833
12.	Bunker Hill Grazing Association	75	6,397.19	5	457
13.	Burkes Lake Stockmans Association	32	3,622.0	11	414
14.	Butcher Creek Grazing Co-op Ltd.	60	1,432.41	11	229
15.	Campbell Creek Grazing Association	53	7,679.5	4	136
16.	Carcajou Grazing Association	48	2,110.9	6	
17.	Castle River Stock Association	27	6,159.192	9	303
18.	Chauvin District Grazing Association	21	1,264.75	10	195
19.	Clear Hills Community Grazing Association	55	8,877.4	18	474
20.	Clear River Grazing Association	44	3,491.60	2	76
21.	Clearwater Cattle Society	64	3,123.8	5	73
22.	Comrey Grazing Co-operative Ltd.	1	29,953.68	21	1,396
23.	Cressday Grazing Association	80	12,032.66	11	400
24.	Cresthill Farmers Community Cattle Grazing Lease Association	19	13,754.04	10	630
25.	Deimuth Lease Association	8	1,716.08	5	73
26.	Drowning Ford Grazing Association	25	33,069.5	83	1,773
27.	Dunn Lake Cattle Association	20	3,274.61	14	227
28.	East Burnstick Grazing Association	85	9,817.19	6	550
29.	Eastern Irrigation District	31	4,879.89	6	328

	Association	Map Location	Acreage	No. of Members	Head of Stock
30.	East Peoria Smoky Grazing Association	56	9,134.9	11	308
31.	Elk Island Grazing Association	34	1,936.39	5	80
32.	Fincastle Grazing Association	71	772.04	26	290
33.	Fir Grove Stock Association	5	4,342.677	7	192
34.	Forty Mile Grazing Association	9	28,967.43	43	1,139
35.	Four Mile Creek Stock Improvement Association	43	22,361.75	10	564
36.	Frog Lake Cattle Association	42	10,288.57	7	594
37.	Garnier Lake Grazing Association	58	17,842.3	10	448
38.	Goodfare Grazing Association	76	6,663.3	8	288
39.	Green Prairie Grazing Group	13	2,875.0	5	126
40.	Hays Stock Grazing Association	37	15,458.804	13	592
41.	Highland Grazing Association	11	11,525.85	7	465
42.	Island Lake Grazing Association	47	5,760.19	5	400
43.	Jake's Butte Grazing Association	78	3,983.0	17	350
44.	Jumping Pound Stock Association	15	12,785.44	9	623
45.	Keg River Community Livestock Improvement Association	41	1,550.0	5	142
46.	Lakes Grazing Association	18	1,906.76	5	245
47.	Lekenwa Cliff Grazing Association	52	1,598.0	4	102
48.	Little Bow Grazing Association	30	4,337.10	9	355
49.	Little Smoky Grazing Association	39	11,086.20	12	462
50.	Lobley Grazing Association	62	5,033.5	5	203
51.	Lomond Grazing Association	24	82,305.99	173	5,048
52.	Long Valley Grazing Association	36	4,349.7	4	161

	Association	Map Location	No. of Acreage	No. of Members	Head of Stock
53.	Look See Grazing Association	73	5,315.5	5	215
54.	Lucky Lake Grazing Association	33	8,903.05	60	331
55.	Many Island Lake Grazing Association	10	17,565.28	31	882
56.	M.C.M. Grazing Association	83	592.8	5	52
57.	Milk River Co-op Grazing Association Limited	50	12,643.92	24	931
58.	Nemiscam Community Pasture Organization #1	7	4,780.6	26	509
59.	Nemiscam Community Pasture Organization #2	45	33,991.39	38	940
60.	North Eaglesham Grazing Association	49	2,889.0	8	196
61.	North Goodwin Stock Improvement Association	72	11,867.35	15	526
62.	North Group Cattle Association	22	10,571.42	7	777
63.	North Wapiti Stock Improvement Association	69	5,996.74	7	161
64.	Old Frontier Grazing Association	54	10,207.35	12	1,418
65.	Peace Valley Stockmens Association	79	7,502.8	5	283
66.	Pipeline Grazing Association	23	30,332.38	19	1,193
67.	Poll Haven Community Pasture	4	10,462.2	43	616
68.	Rainy Hills Grazing Co-op Ltd.	12	19,184.24	18	679
69.	Ross Lake Community Pasture	2	4,473.0	34	597
70.	Round Up Ranch Co-op Ltd.	51	1,916.1	18	544
71.	Rowley Grazing Association	61	7,985.0	33	688
72.	Silver Valley Grazing Association	46	9,246.73	6	329
73.	Simonette Grazing Association	77	3,058.0	5	187

	Association	Map Location	Acreage	No. of Members	Head of Stock
74.	Smoky Lake Grazing Association	68	11,362.98	15	418
75.	Spring Creek Grazing Association	66	6,366.1	3	115
76.	Spruce Ranching Co-operative	40	19,292.71	24	2,674
77.	Stirling Pasture Company Limited	29	747.0	20	139
78.	Stony Hills Grazing Co-op Limited	59	10,709.96	23	847
79.	Tide Lake Grazing Association	16	15,988.91	13	451
80.	Tulliby Lake Stockmans Association	26	16,748.6	38	1,580
81.	Waldron Grazing Co-operative Ltd.	65	15,581.58	95	5,527
82.	Winagami Grazing Association	57	3,996.0	9	275
83.	Windsor Creek Grazing Association	81	6,665.80	8	260
84.	Wolf Creek Grazing Association	70	7,153.6	5	90
85.	Writing-On-Stone Grazing Association	38	15,393.51	38	854
TOTALS			876,911,533	1,559	52,915

ASSOCIATIONS HOLDING ADDITIONAL LAND
UNDER ANNUAL GRAZING PERMIT

	Association	Map Location	Acreage	No. of Members
1.	Boundary Creek Grazing Association	3	4,879.89	7
2.	Lomond Grazing Association	24	2,814.09	175
3.	Silvery Valley Grazing Association	46	1,045.	6

ASSOCIATIONS HOLDING GRAZING PERMITS
IN THE VAUXHALL AREA

Association	Location	Acreage
1. East Hays Group Community Pasture	13 & 14 - 12 & 13 - W4th	2,084
2. Hays Stock Grazing Association	11, 12 & 13 - 12 & 13 - W4th	27,908.14
3. Riverbend Grazing Association	12 & 13 - 12 & 13 - W4th	2,993.29
4. West Group Hays Community Pasture	13 & 14 - 13 & 14 - W4th	1,709.85

GRAZING RESERVES – 1969 SEASON

Southern Alberta Grazing Reserves:

Name of Reserve	Map	Acreage	No. of Patrons	(Cattle) No. of Head	A.U.M.'s Allotted
Twin River	1R	30,869.93	70	2,363	9,142
Purple Springs	2R	1,908.91	71	1,635	7,036
Seven Persons	4R	6,174.06	53	817	3,690
Pinhorn	3R	76,358.50	110	2,909	12,875
Bow Island	8R	38,217.88	66	2,178	8,637
Grassy Lake	10R	2,711.54	(used with Purple Springs)		
SUB TOTAL		156,240.82	370	9,902	41,380

Northern & Central Alberta Grazing Reserves:

Name of Reserve	Map	Acreage	No. of Patrons	(Cattle) No. of Head	A.U.M.'s Allotted
Buck Mountain	9R	16,982.08	45	1,372	6,181.25
Minburn	5R	13,527.44	89	1,668	7,236.5
Jack Pine	12R	8,880.00	26	465	1,805.5
Kleskun Lake	13R	11,357.00	13	326	1,425.125
Rannach	6R	16,198.443	81	1,439	6,391

Name of Reserve	Map	Acreage	No. of Patrons	(Cattle) No. of Head	A.U.M.'s Allotted
Thorhild	15R	17,345.53	12	411	1,593.375
Wanham	7R	15,881.32	54	1,704	6,280.25
Whitemud	11R	22,325.85	7	267	1,102.75
St. Paul *	16R	3,828.34	11	151	624
SUB TOTAL		126,326.003	338	7,803	28,639.75
GRAND TOTALS		282,566.823	708	17,705	70,019.75

*St. Paul Grazing Reserve partially in operation. Head Tax Permits only.

				(Sheep)	
Kleskun Lake	13R	11,357.00	14	1,067	81,463 days
Medicine Lake	14R	5,584.00	15	650	52,055 days
		16,941.00	29	1,717	133,518 days

Grazing fees for 1969 were set as follows:

Irrigated Grazing Reserves (4)	\$3.05 per A.U.M.*
Pinhorn Grazing Reserve	\$2.55 per A.U.M.
Twin River Grazing Reserve	\$2.45 per A.U.M.
Buck Mountain, Jack Pine, Minburn, and Rannach Grazing Reserves	\$2.20 per A.U.M.
Wanham, Kleskun Lake and Whitemud Grazing Reserves	\$2.05 per A.U.M.
Kleskun Lake and Medicine Lake Grazing Reserves – Sheep	\$0.02 per day – dry ewes \$0.025 per day – wet ewes

*A.U.M. – animal unit month (grazing for one animal unit for one month)

GRAZING RESERVES – CATTLE GAINS

In a four year study of weight gains of cattle on the Buck Mountain, Minburn and Rannach Provincial Grazing Reserves, carried out by S.G. Klumph, Supervisor of Grazing Reserves, average gains were reported as follows:

Pounds Gained	Buck Mountain	Minburn	Rannach
Yearling Steers			
Seasonal	211	242	212
Daily	1.77	1.64	1.48
Yearling Heifers			
Seasonal	191	229	215
Daily	1.55	1.60	1.53
Calves			
Seasonal	251	282	284
Daily	2.03	1.91	1.98

SHEEP GAINS

	Ewes	Lambs
Kleskun Lake		
Average Seasonal Gain	12.6 lbs.	47.0 lbs.

In southern Alberta, sample weighing on five reserves carried out by E. R. Edwards, Supervisor of Grazing Reserves, showed average gains for the 1969 season as follows:

Pounds Gained	Bow Island	Pinhorn	Purple Springs	Seven Persons	Twin River
Cows					
Seasonal	210.00	160.00	144.00	212.00	211.00
Daily	1.39	.99	.97	1.34	1.22
Yearling Steers					
Seasonal	181.00	198.00	289.00	—	288.00
Daily	1.19	1.46	1.92	—	1.68
Yearling Heifers					
Seasonal	190.00	237.00	230.00	229.00	248.00
Daily	1.26	1.45	1.53	1.45	1.43
Steer Calves					
Seasonal	294.00	301.00	301.00	239.00	342.00
Daily	1.95	1.86	2.02	1.51	1.98

Pounds Gained	Bow Island	Pinhorn	Purple Springs	Seven Persons	Twin River
Heifer Calves					
Seasonal	277.00	279.00	274.00	219.00	268.00
Daily	1.83	1.72	1.85	1.38	1.55

GRAZING RESERVES UNDER DEVELOPMENT

Name	Location
Black Bear	Twps. 63 & 64, Rges. 25 & 26, W4th
Connor Creek	Twps. 59 & 60, Rges. 7 & 8, W5th
Jack Pine	Twps. 51, 52 & 53, Rge. 6, W4th
Kleskun Lake	Twp. 73, Rge. 4, W6th
Medicine Lake	Twp. 45, Rges. 4 & 5, W5th
Smoky Lake	Twps. 60 & 61, Rges. 6 & 7, W4th
St. Paul	Twps. 55 & 56, Rges. 9 & 10, W4th
Thorhild	Twps. 62 & 63, Rges. 18 & 19, W4th
Whitemud	Twp. 87, Rges. 1 & 2, W6th

PROPOSED GRAZING RESERVES – (Dry Land)

Name	Location
Athabasca	Twp. 64, Rges. 18 & 19, W4th
Cardinal Lake	Twp. 84, Rges. 25 & 26, W5th, Rge. 1, W6th
Goodfare	Twps. 71 & 72, Rge. 13, W6th
Harmon	Twps. 81 & 82, Rges. 17 & 18, W5th
Moose Wallow	Twp. 61, Rges. 6 & 7, W5th
Wetaskiwin	Twp. 45, Rges. 3, 4, 5 & 6, W5th
Wolf Creek	Twps. 65 & 66, Rges. 4, 5, 6, 7 & 8, W4th

PROPOSED GRAZING RESERVES — (Irrigated)

Name	Location
B.R.D. North	Twps. 17 & 18, Rge. 18, W4th
B.R.D. East	Twps. 16 & 17, Rges. 17 & 18, W4th

DEVELOPMENT — 1969

During the fiscal year ending March 31st, 1970 tenders were called and development was carried out on Provincial Grazing Reserves as follows:

BLACK BEAR

- Clearing and piling - 1,295 acres
- Clearing and piling 1,165 acres of fence line
- Fence constructed - 25½ miles

BOW ISLAND

- Construction - arch rafter building
- Construction of 4 dugouts
- Rototilling and seeding 1,000 acres

BUCK MOUNTAIN

- Clearing and piling - 1,468 acres
- Clearing and piling 40 acres of fence line
- Fence constructed - 4 miles

CONNOR CREEK

- Clearing and piling 1,900 acres of fence line

JACK PINE

- Clearing and piling - 1,735 acres
- Clearing and piling 240 acres of fence line
- Fence constructed - 12 miles
- Breaking and seeding - 1,150 acres

KLESKUN LAKE

- Clearing and piling - 1,511 acres
- Fence constructed - 9½ miles
- Breaking and seeding - 1,511 acres

MEDICINE LAKE

- Clearing and piling - 531 acres
- Clearing and piling 852 acres of fence line
- Fence constructed - 26 miles

MINBURN

- Clearing and piling - 2,050 acres
- Clearing and piling 640 acres of fence line

RANNACH

- Fence constructed - 7½ miles
- Breaking and seeding - 3,050 acres

SEVEN PERSONS

- Construction - arch rafter building

ST. PAUL

- Breaking and seeding - 1,314 acres
- Clearing and piling - 1,695 acres
- Clearing and piling 100 acres of fence line
- Corral construction
- Fence constructed - 8½ miles

THORHILD

- Breaking and seeding - 1,322 acres
- fence constructed - 3¼ miles

TWIN RIVER

- Construction - arch rafter building
- Fence constructed - 10 miles

WANHAM

- Breaking and seeding — 1,415 acres
- Clearing and piling - 1,073 acres
- Clearing and piling 105 acres of fence line
- Fence constructed - 15 miles

WHITEMUD

- Clearing and piling - 1,230 acres
- Fence constructed - 3 miles

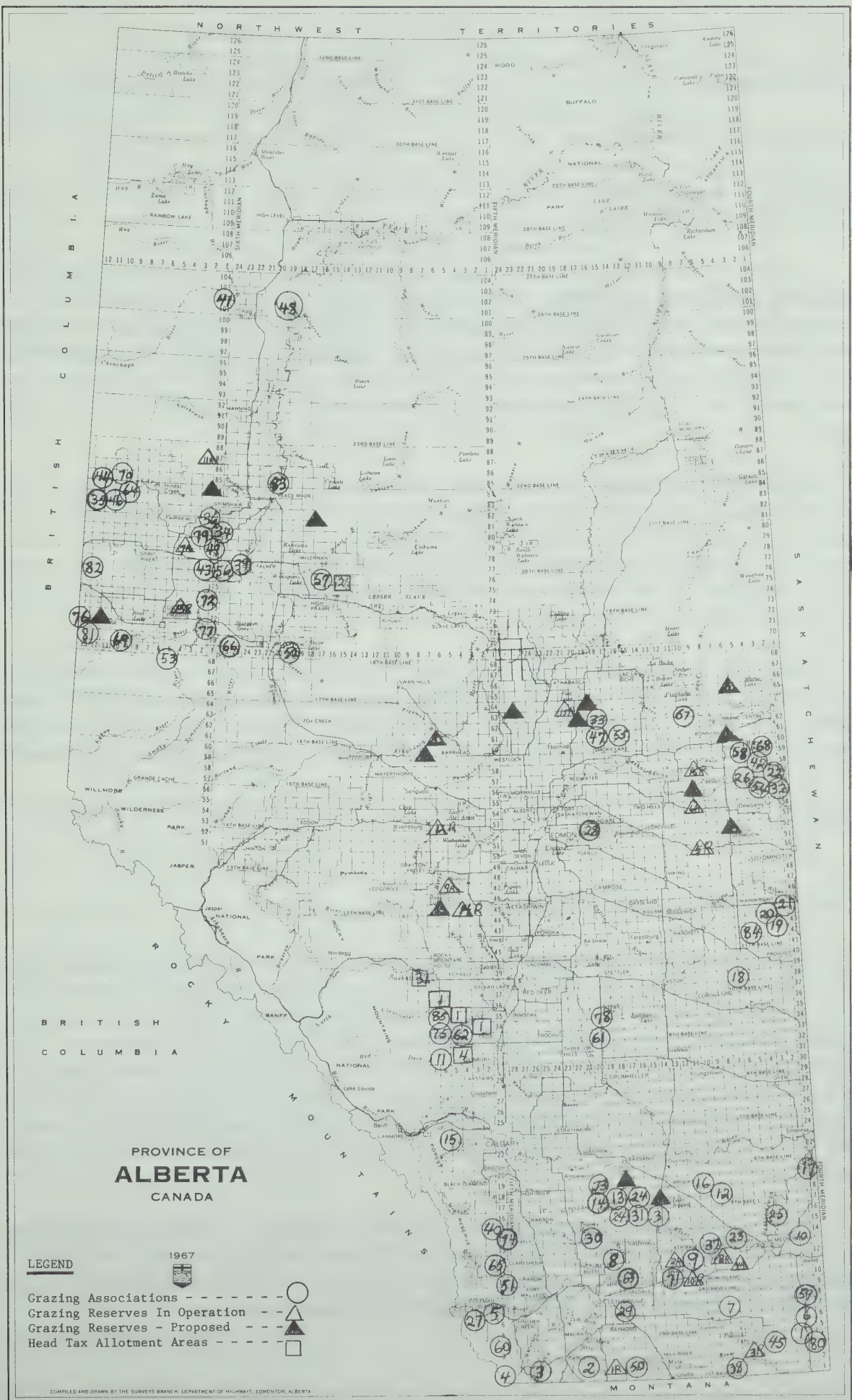
Contracts for this development totalled approximately \$459,449.00.

During 1969 the Vauxhall area was grazed by allotment holders, providing grazing for approximately 6,000 head of stock. Special arrangements are made with the Federal Government in this area.

In the Wainwright area on land leased by the Department of National Defence, the Buffalo Park, South Park and Hughendon Grazing Group graze and cut hay. During the 1969 season 695 tons of hay were cut by 13 patrons. There were 11,408 A.U.M.'s used by stock belonging to 37 patrons of Buffalo Park. The Hughendon Group consisting of 6 patrons grazed 357 head.

HEAD TAX GRAZING AREAS

	Map	Location
1. East Burnstick	1	Twp. 34, Rge. 6, W5th
2. Horse Lakes Grazing Association	2	Twps. 75 & 76, Rge. 16, W5th
3. North Burnstick	1	Twps. 35 & 36, Rges. 6 & 7, W5th
4. Northeast Burnstick	1	Twp. 35, Rge. 6, W5th
5. Northwest Burnstick	1	Twp. 35, Rge. 7, W5th
6. Southwest Burnstick	1	Twp. 34, Rge. 7, W5th
7. South Cow Creek	3	Twp. 38, Rges. 8 & 9, W5th



	Map	Location
8. West Burnstick	1	Used with Southwest Burnstick
9. West End Stock Association	4	Twps. 31 & 32, Rges. 6 & 7, W5th

FIELD INSPECTIONS

1969 saw a continuation of trends in the numbers of the various types of inspections completed which was in evidence the previous year. The more drastic declines were on lands applied for under homestead and agricultural farm sales. Corresponding to these declines were increases in inspections for purchases of patented lands and farm adjustment sales. Collection reports were down from 190 in 1968 to 38 in 1969, an indication of the lenient policy towards delinquent accounts in keeping with economic levels in the farming industry.

Field staff consisted of 24 permanently employed agrologists and two student assistants. A total of 3,411 general inspections and 3,024 soil reports were completed and a backlog of 1,863 remaining outstanding at March 31, 1970. This carryover mainly represents requests which accumulated during the winter months when very little field work can be completed. It can therefore be assumed that cleanup of work at the close of the active inspection season was good.

The Farm Adjustment Program in Census District 15 became operational during 1969 with fairly heavy involvement by field staff members at the administrative level and related field work. Experience to date indicates that committees operating under the Farm Adjustment Program are providing a valuable service to developing farm communities.

A statistical summary of requests for inspections and reports submitted appears in the statistics section.

CLASSIFICATION AND LAND USE PLANNING

With the setting up of the Land Use Assignment Committee and the transfer of the chief Land Use Specialist to this committee, there has been considerable adjustment in function and duties under the jurisdiction of the Classification and Land Use Office. Regional planning now is being completed by the Land Use Assignment Committee. This has not meant a lessening in the workload of the office of the Land Use Specialist as there has been considerable intensification in the duties relating to mining and oil extraction and in administrative functions. This increase in workload has been offset by the appointment of a technical aid and the utilization of one field staff member during the winter months.

A major undertaking during 1969 was a review and revision of reservations in co-operation with the Departmental Systems Analyst. This resulted in the adoption of a departmental coding system which is now the responsibility of the Land Use Specialist. All reservations are reviewed by this office and recorded on master maps.

The increasing emphasis on conservation and environmental control has made it necessary to review all mineral surface lease applications, operational plans for gravel leases and licences of occupation. Where circumstances are such that a recommendation cannot be made from documented data, field investigations are carried out.

The number of land units being purchased under assembly and farm adjustment programs has been rising steadily and resulted in a greater time involvement in setting out land use recommendations. Also in areas of land use, consultations with the Land Use Assignment Committee were held and land use plans reviewed.

The Land Use Specialist has been active on the Grazing Reserves Advisory Committee. This committee has operated on an advisory basis and has proven beneficial in guiding developments and upgrading conservational practices.

STATISTICS – PUBLIC LAND

April 1, 1969 to March 31, 1970

	No.	Area
HOMESTEAD LEASES – CIVILIAN		
Leases in effect at April 1, 1969	1,489	383,837.74
Leases reinstated & area added by amendment	1	332.58
Leases patented during fiscal year	164	40,985.84
Leases cancelled during fiscal year	55	16,189.37
Leases in effect at March 31, 1970	1,271	326,995.11
HOMESTEAD LEASES – VETERAN		
Leases in effect at April 1, 1969	160	45,524.47
Leases reinstated & area added by amendment	1	322.20
Leases patented during fiscal year	20	5,073.08
Leases cancelled during fiscal year	1	159.53
Leases in effect at March 31, 1970	140	40,614.06
HOMESTEAD SALES – CIVILIAN		
Sales in effect at April 1, 1969	4,488	1,208,488.89
Sales granted during fiscal year	405	115,674.27
Sales patented during fiscal year	207	52,902.88

	No.	Area
Sales cancelled during fiscal year	364	106,795.56
Sales in effect at March 31, 1970	4,322	1,164,464.72
HOMESTEAD SALES – VETERAN		
Sales in effect at April 1, 1969	143	42,365.36
Sales granted during fiscal year	9	3,193.95
Sales patented during fiscal year	6	1,597.00
Sales cancelled during fiscal year	10	2,570.34
Sales in effect at March 31, 1970	136	41,391.97
HOMESTEAD LOANS		
Contracts in effect at April 1, 1969	1,094	
Contracts issued during fiscal year	1	
Contracts cancelled during fiscal year	17	
Contracts paid in full during fiscal year	93	
Contracts in effect at March 31, 1970	985	
HOMESTEAD LOAN SALES		
Sales in effect at April 1, 1969	73	18,465.65
Sales granted during fiscal year	6	1,750.87
Sales patented during fiscal year	19	4,938.23
Sales cancelled during fiscal year	0	0
Sales in effect at March 31, 1970	60	15,278.29
CROP SHARE LEASES – CLEARING PROJECT		
Leases in effect at April 1, 1969	1	316.97
Leases reinstated during fiscal year	0	0
Leases cancelled during fiscal year	1	316.97
Leases in effect at March 31, 1970	0	0

	No.	Area
PURCHASE AGREEMENTS – CLEARING PROJECT		
Sales in effect at April 1, 1969	32	10,262.04
Sales issued during the fiscal year	0	0
Sales patented during fiscal year	3	961.34
Sales cancelled during fiscal year	0	0
Sales in effect at March 31, 1970	29	9,300.70
SEED CROP LEASES		
Leases in effect at April 1, 1969	3	9,656.60
Leases issued during fiscal year	0	0
Leases cancelled during fiscal year	0	0
Leases in effect at March 31, 1970	3	9,656.60
MISCELLANEOUS LEASES		
Leases in effect at April 1, 1969	388	63,723.650
Leases issued during fiscal year	38	6,246.920
Leases cancelled during fiscal year	48	6,446.805
Leases in effect at March 31, 1970	378	63,523.765
Permits issued during fiscal year	1,111	
MISCELLANEOUS TOWNSITE LEASES		
Leases in effect at April 1, 1969	537	
Leases issued during fiscal year	151	
Leases cancelled during fiscal year	106	
Leases in effect at March 31, 1970	582	
RECREATIONAL LEASES		
Leases in effect at April 1, 1969	179	9,987.13
Leases issued during fiscal year	7	552.57

	No.	Area
Leases cancelled during fiscal year	2	114.04
Leases in effect at March 31, 1970	184	10,425.66
LICENCE OF OCCUPATION		
Licences in effect at April 1, 1969	1,773	
Licences issued during fiscal year	291	
Licences cancelled during fiscal year	204	
Licences in effect at March 31, 1970	1,860	
EASEMENTS		
Easements in effect at April 1, 1969	2,670	
Easements issued during fiscal year	237	
Easements cancelled during fiscal year	52	
Easements in effect at March 31, 1970	2,855	
ACCRUED AREA		
Leases in effect at April 1, 1969	55	3,654.82
Leases issued during fiscal year	0	0
Leases cancelled during fiscal year	46	2,947.32
Leases in effect at March 31, 1970	9	707.50
PUBLIC LAND SALES		
Sales in effect at April 1, 1969	1,412	211,746.93
Sales granted during fiscal year	217	11,226.24
Sales patented during fiscal year	327	28,656.11
Sales cancelled during fiscal year	6	1,004.82
Sales in effect at March 31, 1970	1,296	193,312.24
AGRICULTURAL FARM SALE		
Sales in effect at April 1, 1969	1,764	320,089.62

	No.	Area
Sales granted during fiscal year	263	48,925.88
Sales patented during fiscal year	152	25,504.31
Sales cancelled during fiscal year	6	1,586.62
Sales in effect at March 31, 1970	1,869	341,924.57
FARM CONSOLIDATION & ENLARGEMENT SALES		
Sales in effect at April 1, 1969	24	8,533.25
Sales granted during fiscal year	46	15,084.63
Sales patented during fiscal year	0	0
Sales cancelled during fiscal year	2	633.97
Sales in effect at March 31, 1970	68	22,983.91
CULTIVATION LEASES		
Leases in effect at April 1, 1969	706	136,627.62
Leases issued during fiscal year	228	44,307.08
Leases cancelled during fiscal year	266	52,528.96
Leases in effect at March 31, 1970	668	128,405.74
SAND & GRAVEL LEASES		
Leases in effect at April 1, 1969	400	
Leases issued during fiscal year	39	
Leases renewed during fiscal year	22	
Leases cancelled during fiscal year	41	
Leases in effect at March 31, 1970	398	
Licences issued during fiscal year	163	
Exploration Licences issued during fiscal year	2	
QUARRYING LEASES		
Leases in effect at April 1, 1969	3	

	No.	Area
Leases issued during fiscal year	0	
Leases cancelled during fiscal year	1	
Leases in effect at March 31, 1970	2	
TRANSFER OF ADMINISTRATION & CONTROL		
Department of Municipal Affairs	29	3,379.01
Department of Agriculture	2	1,545.12
Department of Public Works	1	1.45
Free Grants	7	864.25
Exchange of Lands	37	
Purchases under A.R.D.A. — Land Assembly Program	273	
	Listed	Sold
AUCTION SALES		
Public Lands	38	37
Highest price per acre	\$ 34.00	
Average price per acre	\$ 9. 26	
	No.	Area
GRAZING LEASES		
Leases in effect at April 1, 1969	4,366	4,560,151.36
Leases issued during fiscal year	311	214,531.31
Area added by amendment		73,051.95
Leases cancelled during fiscal year	140	77,280.37
Area deleted by amendment		52,588.44
Leases renewed during fiscal year	248	
Leases in effect at March 31, 1970	4,537	4,717,865.81

No.

Area

GRAZING PERMITS

Edmonton District	953	164,246.91
Calgary District	666	293,449.35
Peace River District	247	66,536.40
Grande Prairie District	102	29,372.10

HAY PERMITS

Number of Permits issued	410.00
Number of Tons cut	5,209.50

INSPECTIONS**GENERAL**

Requests outstanding at April 1, 1970	1,253
Requests called during fiscal year	3,024
Reports received during fiscal year	3,411
Requests outstanding at March 31, 1970	1,053

SOIL SURVEY

Requests outstanding at April 1, 1969	1,445
Requests called during fiscal year	1,580
Reports received during fiscal year	3,024
Requests outstanding at March 31, 1970	813
Collection reports received during fiscal year	38

MINERAL SURFACE LEASES

Leases in effect at April 1, 1969	4,322	116,551.96
Leases issued during fiscal year	533	5,453.68
Leases cancelled during fiscal year	209	1,328.05
Leases in effect at March 31, 1970	4,646	120,677.59

	No.	Area
TOWNSITE LEASES		
Leases in effect at April 1, 1969	1	32.00
Leases issued during fiscal year	0	0
Leases cancelled during fiscal year	0	0
Leases in effect at March 31, 1970	1	32.00
PIPE LINE AGREEMENTS		
Agreements in effect at April 1, 1969	3,123	35,241.34
Agreements issued during fiscal year	400	6,399.58
Agreements cancelled during fiscal year	3	45.49
Agreements in effect at March 31, 1970	3,520	41,595.43
PIPE LINE INSTALLATION		
Installations in effect at April 1, 1969	140	325.96
Installations issued during fiscal year	19	26.48
Installations cancelled during fiscal year	1	6.31
Installations in effect at March 31, 1970	158	346.13
RIGHTS OF ENTRY		
Rights of Entry in effect at April 1, 1969	5,838	
Rights of Entry issued during fiscal year	43	
Rights of Entry cancelled during fiscal year	40	
Rights of Entry in effect at March 31, 1970	5,841	
Applications	No. Received	No. Cancelled
Grazing (new)	614	145
Grazing (renewal)	215	15
Homestead Loans	0	16
Homestead Sales	403	165

Applications	No. Received	No. Cancelled
Mineral Surface	840	236
Pipeline Agreement	527	61
Pipeline Installation	34	0
Cultivation	264	100
Purchase	284	102
Miscellaneous	185	149
Miscellaneous Townsite	154	37
Renewal Miscellaneous	16	0
Renewal Miscellaneous Townsite	18	0
Recreational	24	11
Renewal Recreational	1	0
Licence of Occupation	578	225
Easements	213	22
Sand & Gravel	82	48
Renewal Sand & Gravel	11	0
Right of Entry	84	21
Agricultural Farm Sale	320	135
Farm Consolidation & Enlargement Sale	95	83
TOTAL	4,962	1,571

ALBERTA FOREST SERVICE

REPORT OF THE DIRECTOR *R.G. STEELE*

The report for 1969-70 reflects for the first time the reorganization of administration of the Alberta Forest Service. This has resulted because of increased interest in other uses of forest land and the necessity to implement greater administrative control over forestry policies and practices. The branches are now organized into Administration, Construction and Maintenance, Forest Land Use, Forest Protection, Timber Management and Training.

Some changes were implemented in field operations by combining some of the Ranger Districts and moving the centralized headquarters to towns and villages that provide improved amenities for the staff. Our in-service educational program is constantly expanding to ensure that our staff are qualified to meet the greater demands that are being imposed on them by more concentrated and integrated use of the forests. Most new field staff are either Forest Technology or Professional Forester graduates.

Despite a poor economy in the forest industry during the year, for the second successive year our total production of forest products increased significantly. For the first time, lumber production exceeded one-half billion board feet. Interest was shown in the utilization of the vast poplar resources in the province which resulted in the issue or sale of extensive deciduous timber allocations that should produce more than 60 million board feet per year of poplar lumber and other products. Current demand will necessitate additional quota sales in the summer of 1970.

Our construction program was supported by substantial funds from the Northern Alberta Development Council and A.R.D.A. All staff housing has been transferred to the control of the Alberta Housing Corporation.

Industrial development in the forested area continues to increase primarily because of the oil and gas industry. New operational controls have become necessary and require a great deal of supervision to restrict environmental damage to an acceptable level.

The number of fires and the cost of suppressing them remained high for the third successive year. Aircraft of various types were used on almost half of the fires. Nearly all suppression action was carried out by trained firefighters and permanent Forest Service employees. A used DC-3 aircraft was purchased principally to transport the 25-man trained firefighter crews. Lightning caused almost half of the fires. A recreational travel closure was again required during the late summer and early fall in the southern foothills because of extended extreme hazard conditions.

The following reports of the Forest Service Branches provide greater detail of activities and statistics and briefly explain organizational changes where necessary.

CONSTRUCTION AND MAINTENANCE BRANCH

During the past year Head Office reorganization saw the establishment of a new branch incorporating all aspects of construction and maintenance of facilities; such as, roads, airstrips, bridges, buildings and recreation areas. The purchase, maintenance and repair of mobile equipment and vehicles as well as the development of specialized equipment is a further responsibility of the branch.

The branch is comprised of four sections and a brief summary of their activities during the past year is contained hereunder.

ROADS AND AIRSTRIPS SECTION

ROADS:

Fort Vermilion - Wadlin Lake Road in the Footner Lake Forest was extended an additional 25 miles to Mile 62. This road has been gravelled and 30,000 cubic yards stockpiled. Grading costs for this section were \$321,000.00 and engineering costs were \$39,000.00. The funds for this project were provided by the Northern Alberta Development Council. The road will provide access for timber extraction, oil development and fire protection.

The Peerless Lake - Graham Lake Access Road in the Slave Lake Forest was started last year to provide road access for the native people living at these two lakes. In addition, the road will provide an outlet for commercial fishing products. One hundred eighty-six acres of clearing was completed on this project at a cost of \$41,000.00. Due to very heavy rains in the fall, the grading was not completed. Funds for the work were supplied by the Northern Alberta Development Council.

Eight miles of road were completed under the A.R.D.A. program which gives access to Wolf Lake from Highway 16. The road will allow recreational development in this area as well as forest fire protection. The work was carried out with A.R.D.A. funds at a cost of \$71,000.00.

GRAVELLING:

Gravelling of two hundred miles of road was carried out in the 1969-70 construction year. Ninety-two miles of the regravelling was on the trunk road in the Bow River Forest from the Highwood Summit to the Red Deer Ranger Station. Other roads gravelled were 30 miles on the Two Lakes Road, Grande Prairie Forest; 20 miles on the Round Hill Conklin Road, Lac La Biche Forest; 45 miles on the Swanson and Imperial Roads, Edson Forest. The Department supplied \$116,000.00 in maintenance funds for this work.

BRIDGES:

The Pembina Bridge, Clearwater-Rocky Forest, a 225 foot steel structure, was built with salvage steel at a cost of \$14,000.00 with A.R.D.A. funds.

The Dismal Creek Bridge, Clearwater-Rocky Forest, an 80 foot precast structure, was constructed of new material at a cost of \$17,000.00 with A.R.D.A. funds.

The James No. 3 Bridge, Bow River Forest Trunk Road, a 115 foot steel structure, was built with salvaged steel at a cost of \$19,000.00 with Forestry funds.

The Beaver River Bridge, Athabasca Forest, a 126 foot precast structure with center steel pier, was built on the Fort McKay Road at a cost of \$47,000.00. Funds were supplied by The Northern Alberta Development Council.

The Northern Alberta Development Council supplied funds for the Peerless Creek Bridge on the Peerless Lake - Graham Lake Road in the Slave Lake Forest. This structure is treated wood material, 65 feet long and was built at a cost of \$11,000.00. The total length of structures built during 1969-70 is 611 feet.

AIRSTRIPS:

Falls Airstrip, Clearwater-Rocky Forest, was lengthened to 3,600 feet at a cost of \$6,000.00 with Forestry funds.

Fox Creek Airstrip, Whitecourt Forest, was upgraded to DC-3 standard for water bombing operations at a cost of \$30,000.00 with Forestry funds.

BUILDINGS SECTION

New and replacement buildings were built at a cost of \$173,900.00. The individual buildings constructed and the total inventory of Forest Service buildings are shown on the chart below. One hundred and forty-two residences were deleted from the inventory as the control and administration of the houses was taken over by the Alberta Housing Corporation. The Forest Service constructed an Airport Terminal Building at Footner Lake Airport for the Northern Alberta Development Council at a cost of \$74,087.00. The total building inventory does not include major buildings at Forest Headquarters as these are the responsibility of the Department of Public Works.

TYPE OF BUILDING	New Buildings Constructed 1969	Buildings Replaced 1969	Building Inventory Total
Primary Lookouts	1		145
Secondary Lookouts	1		36
Garages	Nil		77
Cache-Garage Combination	1		18
Tool Caches	Nil		70
Lookout Cabins	1	2	112
Engine Houses	1	2	146
Barns	Nil		18
Recreation Areas	Nil		94
Recreation Area with Shelter	1		54

TYPE OF BUILDING	New Buildings Constructed 1969	Buildings Replaced 1969	Building Inventory Total
Stop-Over Cabins and Bunkhouses	3		114
Trailer, House, 3 Bedroom	1		7
Offices	2		18
Airport Combination Building	Nil		1
Airport Administration Building	1		2
Miscellaneous Buildings: Speeder Sheds, Fuel Caches, Remote Receiver Sheds, Fire Holding Camps, etc.	6		303
	19	4	1,215

MECHANICAL SECTION

During the first part of 1969 the Mechanical Section operated from the old A.F.S. Warehouse on 109 Avenue and 120 Street with limited staff and resources. The most salient event of 1969 was the move from the old warehouse to the new A.F.S. Depot in the month of March. This provided an increase in staff and the facilities to achieve the following objectives:

1. Better servicing and repair of all A.F.S. power generating plants. A program was implemented for the training of field staff in proper servicing and minor repairs of plants in the field. Distribution of power plants throughout the province was as follows:

LOOKOUTS	151
RANGER STATIONS	8
RELAY SITES	19
FIRE CAMP PORTABLE	74
MAINTENANCE & CONST.	31
HEADQUARTERS STANDBY	3
AIRFIELDS	4
RELAY SITE STANDBY	3
TOTAL	292

2. Establishment of centralized fire pump repair service by specially trained staff. This service was started in the last two months of 1969 and 47 pumps were repaired during that time.

3. Establishment of a centralized repair service for trail bikes and chain saws. This permits repairs to be conducted progressively by stages and allows for purchase of repair parts in quantity resulting in a considerable saving in time and money. During the latter part of 1969, 17 trail bikes and 41 chain saws were repaired and overhauled.
4. Provide maintenance and repair service for Alberta Forest Service vehicles working out of Edmonton. The breakdown by branches is as follows:

	Vehicles
Forest Protection Branch	6
Construction and Maintenance Branch	15
Timber Branch	10
Forest Land Use Branch	2
Administration Branch	1
TOTAL	34

5. Serve as the dispatching point for the two A.F.S. transport trucks. With these two trucks, transport service was provided to all A.F.S. branches in Edmonton, and all the Forests throughout the province. During the period in 1969 that the Mechanical Section dispatched these trucks (approximately six months), the two trucks combined travelled 90,000 miles and transported 100 tons of materials on a total of 114 trip assignments.

6. In addition to providing new and improved services, the Mechanical Section has continued in its role as the agency responsible for requisitioning vehicles and mechanical equipment, purchasing repair parts for the field, co-ordinating repairs of equipment in the Forestry garages throughout the province and writing up specifications on all vehicles and mechanical equipment being purchased. Specifications were drawn up and requisitions issued for seventy new and replacement trucks, and an assortment of smaller pieces of equipment such as tractors, power toboggans and trail bikes.

EQUIPMENT DEVELOPMENT SECTION

Since April of 1970, this section has operated as a separate entity under the Construction and Maintenance Branch of the Department of Lands and Forests.

Objectives of the section are basically the same; to carry out feasibility studies on approved projects, to design and develop equipment which is not in production by established industry, and to test certain equipment in production by private industry to establish its potential with regard to Fire Control requirements.

The Hose Processing Equipment was completed and approximately 60,000 feet of hose was treated, tested, washed, rolled and dried. In 1969 some minor modifications were carried out and hose wear tests completed with satisfactory results.

Two Monsoon Buckets for use with the 204 Bell Helicopter were manufactured. Shop tests were completed and the units distributed to fires in the field as required for operational results and evaluation.

Two Long Term Fire Retardant Mixers were completed and tested. These units are designed for mixing Fire-Trol, Phos-Check and TX350 fire retardants.

A Film Drier was designed and manufactured for drying film after it is processed. This unit is used for developing photographs of fires at locations throughout Alberta. The equipment is mounted in a van body on a three quarter ton truck, resulting in mobile photographic developing equipment.

Work is progressing on a Back-Pack Flame Thrower for back-burning or as a burning-out tool. A vast amount of information has been obtained on Flame Throwers from the Canadian Department of National Defence, the U.S.A. and other Agencies. Several Flame Throwers have been tested and jelling chemicals for jelling fuels were obtained and also tested. Some promising results were realized in 1969.

Several projects were undertaken and completed for other divisions such as seedling carriers, light plant trailers, fiberglass boats, fire finder modifications and gelgard mixers.

Eight fiberglass cupolas for lookouts were manufactured in 1969 for field distribution.

FOREST LAND USE BRANCH

The Forest Land Use Branch was formed early in the fiscal year, in order to provide for more broadly based management of the province's forested lands and integration of development and use of the resources of these lands. The primary function of the branch is to co-ordinate the long term management planning and administration of the use of forest land and to correlate water, recreation and forage management with timber, fish and wildlife management.

LAND USE RESEARCH

Erosion Control —

The objectives of the Swan Hills erosion control project having been fulfilled, the data-gathering program was terminated at the end of the summer field season. The climatological and suspended sediment sampling networks will be maintained on a limited basis and demonstration and trial areas will be utilized as necessary. An interim report on vegetative trials was distributed.

Mined Land Reclamation —

Initial plans were made for applied research studies into methods for repairing environmental damage caused by strip mining in foothills and mountain areas. Reclamation trials were conducted by Land Use Officers in the Coleman, Kananaskis and Coal Branch areas.

Range Management —

Range surveys and inspections were conducted and seven revised grazing allotment plans were produced for the Rocky Mountains Forest Reserve. Work progressed on six other allotment plans.

Wild horses continued to present administrative problems in several regions in the Green Area.

Initial plans were made for several range improvement projects in the Bob Creek and Jumpingpound areas.

Data collection continued on the Co-operative Forage Resources Study in Bob Creek which is designed to evaluate elk-livestock grazing competition.

Actual grazing use in the Rocky Mountains Forest Reserve was 85,446 animal unit months, with 26,363 head of cattle, horses and sheep being grazed. The total revenue for this use was \$76,069.22.

There were 283 grazing leases and 143 grazing permits in existence in the Forest Management Units in the green zone.

All Forest Superintendents were appointed by the Minister for rounding up trespass livestock.

Watershed Management —

Active co-operation continued in the activities of the Alberta Watershed Research Program and the International Hydrological Decade.

Watershed research studies continued on the Tri Creek project and the head office co-ordination duties were assumed. Data collection is being carried out by a forest management technician based at the Edson Forest office.

Co-operation was given in the planning of the Foothills Water Quality Study, a multi-disciplinary project which will relate the effects of land disturbance to water quality in the North Fork of the Sheep River.

Progress was made in establishing means for co-ordination and liaison with other divisions and agencies regarding watershed management and research problems.

Conferences, Seminars, etc. —

In co-operation with the Canadian Forest Service a two-day seminar on Managing Forest Lands for Water was conducted at the Depot.

Papers were presented to the Forest-Habitat Inventory Symposium sponsored by the Canadian Forestry Service.

Staff members attended the Third Forest Microclimate Symposium held at the Kananaskis Forest Experimental Station.

MULTIPLE USE PLANNING**Land Classification —**

Progress of land classification for forestry under the Canada Land Inventory Program, Project No. 48018 is illustrated later in text in map form which also shows the agencies responsible for completion of various areas.

Approximately 29,000 square miles in map blocks: 84-B, C, F, J, K and L in northern Alberta have been contracted out to Spartan Air Services Ltd. This contract is to be completed by March 31, 1971.

Foothills Resource Allocation Study —

Approval was obtained to undertake a comprehensive inter-disciplinary study of the foothills area. The project will be administered by the branch and will continue for at least two years. Canada Land Inventory data will be applied to common landscape units to provide a basis for the most beneficial allocation of the renewable resources of the area.

OPERATIONS

Industrial development in the green area continued to increase. While oil and gas industry activity fell off slightly the resurgence of the coal industry resulted in a flurry of exploration in the mountains and foothills. In order to prevent unacceptable levels of damage to other resources and to generally protect environmental quality, it is necessary

to closely supervise these activities and place a number of operating restrictions upon them.

Timber damage assessment rate was increased from \$8.00 per acre for geophysical lines and \$11.00 per acre for other uses, to \$28.00 per acre for all uses. The new rate reflected increased timber values, updated forest inventory and inclusion of a supervision charge.

Debris disposal requirements on geophysical lines were relaxed for a large area in the northern part of the province. In this area the operators are required to pay a protection levy of \$25.00 for each mile of line cut.

The department assumed responsibility for erosion control on geophysical lines in an area of the foothills where most lines received repeated use by several operators. A flat sum per mile of line cut or used is collected from each operator, to defray the cost of erosion control measures.

Petroleum and Natural Gas —

Applications received for land surface rights from petroleum and natural gas industries.

Forest	1966-67	1967-68	1968-69	1969-70
Athabasca	5	17	24	20
Bow River	2	13	30	54
Clearwater-Rocky	117	92	143	173
Crowsnest	4	1	15	21
Edson	50	30	99	73
Footner Lake	613	847	676	366
Grande Prairie	34	45	54	57
Lac La Biche	40	41	68	48
Peace River	43	67	62	47
Slave Lake	425	255	351	296
Whitecourt	137	192	309	278
TOTAL	1,470	1,600	1,831	1,433

The table above illustrates a steady increase in activity until 1969-70 when newly discovered oilfields were being developed. Activity for the fiscal year 1969-70 is slightly lower even though a major H₂S gas field was discovered near Strachan.

Responsible oil companies are taking action towards controlling the soil erosion problem in the Swan Hills Oilfield. Several unit operators have submitted erosion control plans.

Several new wells were drilled on Zama Lake. The companies involved are taking the required necessary precautions to prevent oil pollution which could result in damage to waterfowl populations.

Eight gas plants are being constructed, in the following general locations.

Pacific Petroleum Ltd.	Whitecourt
Gulf Oil Canada Limited	Strachan
Hudson's Bay Oil & Gas Company Limited	Fox Creek
Amoco Canada Petroleum Company Ltd.	Marten Hills
Atlantic Richfield Company	Gold Creek
Shell Canada Limited	Fallen Timber Creek
Chevron Standard Limited	Pine Creek
Banff Oil Ltd.	Prairie Creek

Geophysical —

Geophysical Applications Processed

	Preliminary Plans Approved	Final Plans Approved	Number of Line Miles Cut	Number of Existing Line Miles Used
1963-64	435	132	7,755	
1964-65	392	175	7,639	8,080
1965-66	603	206	7,204	8,656
1966-67	1,216	422	18,064	12,821
1967-68	924	213	13,348	6,543
1968-69	767	279	9,083	7,203
1969-70	737			

Major geophysical activity is along the foothills belt from Rocky Mountain House in the south to Grande Prairie in the north.

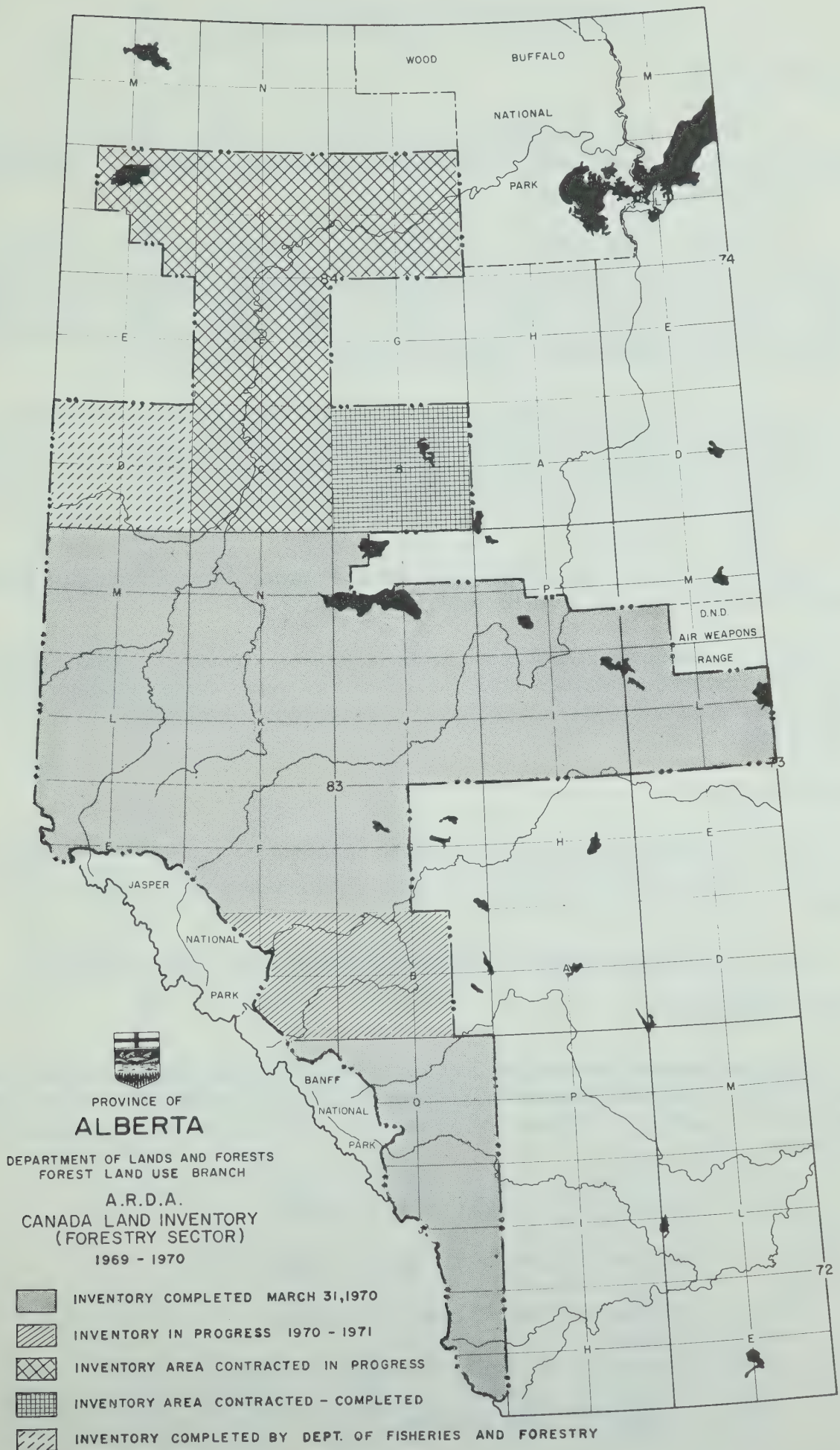
Coal Mining —

Twenty-two coal exploration programs were applied for and approved.

Recreational Planning —

Federal-Provincial A.R.D.A. Project 28035 continued in 1969-70 and \$148,000.00 was spent in the re-development and expansion of thirty existing recreation areas in those Forests north of the Red Deer River. In the Forests south of this boundary, \$65,000.00 of provincial funds were spent on major improvements to seven recreation areas.

A total of \$65,000.00 was spent on a maintenance program for some 94 developed Forest Service recreation areas. No new recreation areas were constructed in 1969-70.



FOREST PROTECTION BRANCH

FIRE WEATHER

The 1969 fire season reached its highest fire danger level during the first two weeks of June. During this period, major fire outbreaks occurred in the Rocky-Clearwater, Peace River and Footner Lake Forests.

A strong upper ridge of high pressure dominated the weather pattern from mid-May to mid-June. It was in the latter part of this period that fire hazards began to increase rapidly. Temperatures for May were near normal, but precipitation in western Alberta was below normal, being as low as 25% of normal in the Peace River districts. Lac La Biche, on the other hand, recorded above normal precipitation during this period.

During the first two weeks of June, a strong blocking high pressure area was situated over central British Columbia and western Alberta, resulting in hot dry conditions for both in the British Columbia interior and western Alberta. During the last half of the month, normal westerlies re-established themselves across the western provinces bringing cooler moist weather.

The westerly flow of cool Pacific air continued moving across Alberta during July and prevented the fire hazard from becoming too critical.

Warm dry weather prevailed across southern Alberta, whereas the opposite pattern was recorded across northwestern areas. No serious fires were recorded although the extreme southwest remained very dry and the fire danger was critical enough to warrant a forest closure.

FIRE DETECTION

The total number of fire lookouts in operation during the year was 143. A distance of 160,000 miles was flown by aircraft on fire patrol during which 132 fires were discovered.

The fires reported by different agencies are shown on the accompanying tables.

FIRE SUPPRESSION

Suppressive action was taken on 530 fires within the "forest protection area." An area of 71,285 acres was burned over, consisting of 39,039 forested land, 30,287 non-forested Crown land and 1,950 acres of private land. The 530 fires are shown below by size class.

286 Class "A" or small fires ($\frac{1}{4}$ acre or less)

168 Class "B" (over $\frac{1}{4}$ acre up to 10 acres)

57 Class "C" (over 10 acres to 100 acres)

12 Class "D" (over 100 acres up to 500 acres)

7 Class "E" (over 500 acres)

COMPARISON OF FIRE CAUSES BY PERCENTAGES

FOR THE YEARS 1960 TO 1969 INCLUSIVE

CAUSE	1960	1961	1962	1963	1964	1965	CAUSE	1966	1967	1968	1969
Campers	23.0	13.1	18.0	15.3	17.2	15.1	Recreation	19.1	20.7	13.9	12.5
Smokers	11.8	9.0	4.0	6.9	10.9	7.5					
Settlers	12.0	9.4	6.1	5.2	14.8	4.4	Settlement	13.5	10.5	34.0	13.0
Railways	2.5	0.2	3.6	1.3	1.8	2.8	Railroads	1.9	5.9	1.1	1.0
Lightning	22.2	41.8	37.8	47.5	25.1	45.2	Lightning	28.3	33.9	17.5	42.0
Industrial	9.1	7.5	14.7	6.9	7.7	9.5	Other Industries	20.2	12.8	10.2	10.0
							Forest Industries	1.9	2.7	3.7	5.3
Incendiary	12.2	10.5	6.8	12.8	16.6	9.9	Incendiary	9.4	7.2	10.2	6.3
Public Projects	1.9	2.2	2.5	0.5	4.7	2.8	Public Projects	2.2	1.3	3.2	3.5
Unclassified	2.8	1.9	2.2	0.9	0.9	1.6	Unclassified	3.0	2.5	5.2	5.0
Unknown	2.5	4.4	4.3	2.7	0.3	1.2	Unknown	0.5	2.5	1.0	1.4

FORESTRY

SUMMARY SHOWING TOTAL NUMBER OF FIRES AND BURNT OVER AREAS
FROM 1960 TO 1969 INCLUSIVE

Year	Total Fires	Non- Forested Acres	Forested Acres	Total Area Acres	Suppression Costs \$
1960	474	9,497	10,463	19,960	345,623
1961	811	36,288	157,257	193,545	2,365,862
1962	278	1,386	3,120	4,506	210,869
1963	554	3,055	14,554	17,609	609,502
1964	338	6,325	8,732	15,057	396,719
1965	252	4,565	49,769	54,334	574,516
1966	371	34,108	35,842	69,950	1,305,603
1967	796	9,777	13,438	23,215	2,382,615
1968	617	461,585	527,790	989,375	5,506,872
1969	556	28,011	44,382	72,393	2,843,994
TOTALS	5,047	594,597	865,347	1,459,944	16,542,175

In addition to the above, action was taken on 26 fires that were not the responsibility of the Forest Service. These fires burned over an area of 1,108 acres.

AIRCRAFT OPERATIONS

	Government Owned	Leased	Casual Charter	1969 Total
Helicopters	3	5	23	31
Fixed Wing	4	16	69	89
Total	7	21	92	120

Total hours flown — 12,631 all aircraft

Aircraft were in action on 263 fires

The Forest Service added to its fleet by purchasing a DC-3 which was promptly put to work transporting fire crews.

Forest Service aircraft were also used in suppression of two fires in British Columbia and five in Wood Buffalo National Park.

FIRE STATISTICS

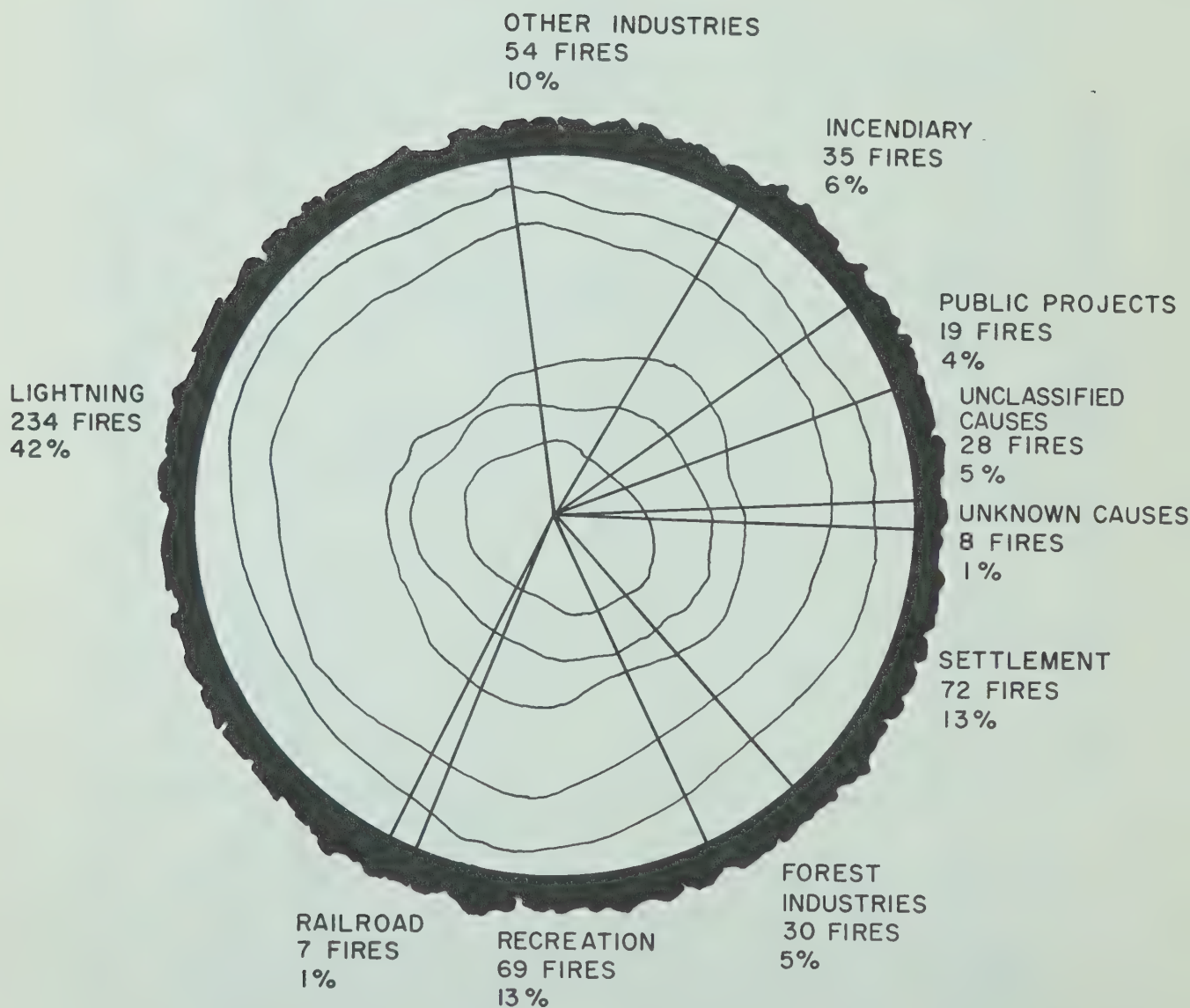
The following tables and charts give statistical detail on 1969 fires and comparisons with other years.

ANNUAL STATEMENT OF FIRES BY CAUSES, MONTHLY DISTRIBUTION, ETC.
FOR THE YEAR 1969

CAUSE	NUMBER							MONTHLY DISTRIBUTION												DISCOVERED BY					DAMAGE	AREA																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
	A	B	C	D	E	TOTAL	%	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOWERS	PUBLIC	FOREST RANGERS	AIRMAINT	RAILROAD		CROWN LAND	PRIVATE LAND	TOTAL																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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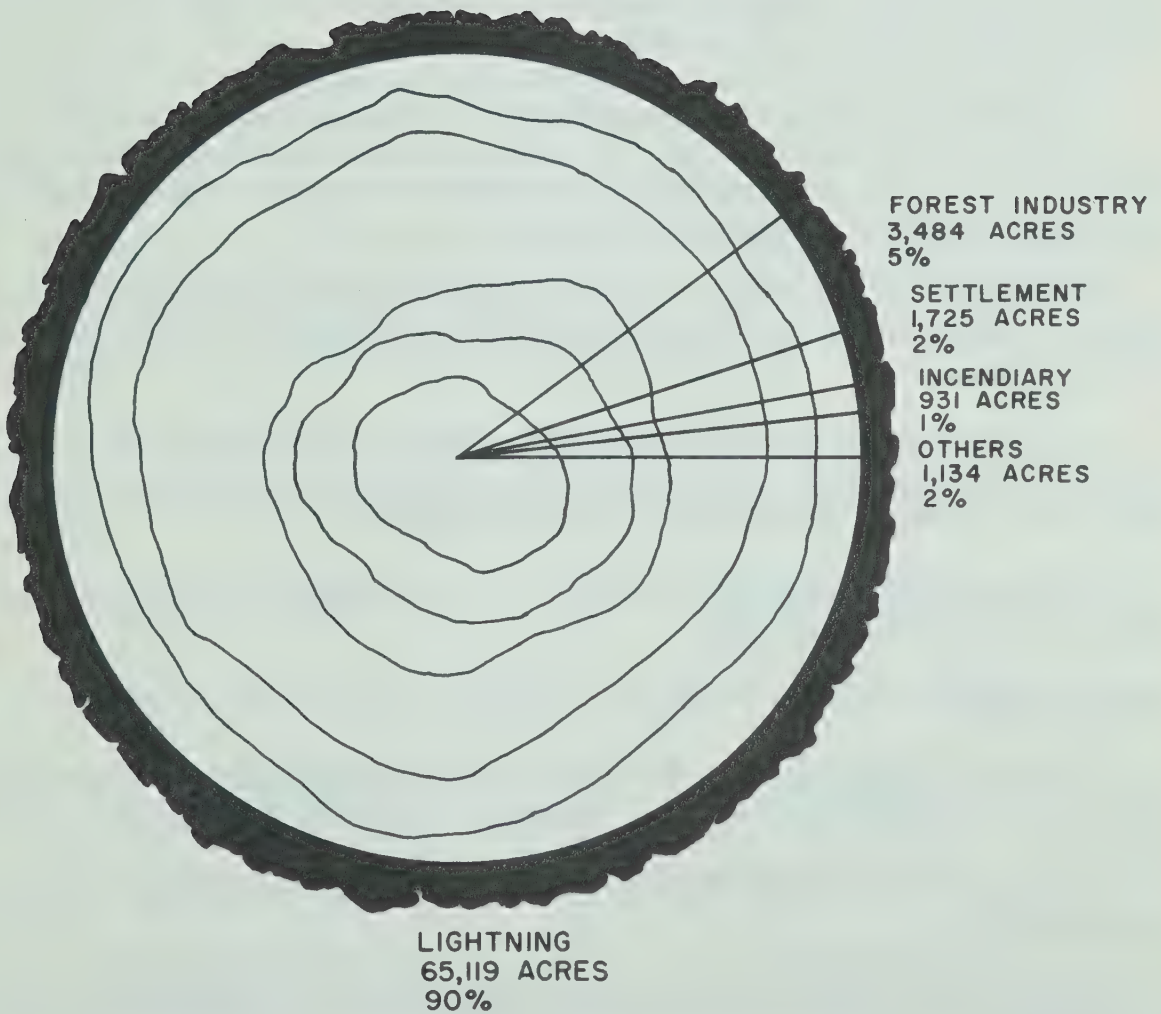
NUMBER of FIRES by CAUSE 1969

TOTAL FIRES 556



AREA BURNED by CAUSE 1969

TOTAL AREA BURNED 72,393 ACRES



FIRES LISTED UNDER 'OTHER' CAUSES INCLUDE THOSE CAUSED BY RECREATION, RAILROADS, OTHER INDUSTRIES, PUBLIC PROJECTS, UNUSUAL AND UNKNOWN CAUSES.

TELECOMMUNICATIONS

The leasing of equipment from Alberta Government Telephones continued during the year. The development and operation of the networks was controlled by Alberta Forest Service.

The Communications Section was moved to the New Alberta Forest Service Depot. In order to provide the telecommunication facilities to the Natural Resources Building, a teletype and facsimile system was set up between the two buildings.

A complete communications system for fires based on the building block concept which utilizes individual multi-squad packages was completed. These combined provide sufficient communications to handle a zone fire. This covers fireline, administrative and air to ground communications on separate frequencies reserved for these purposes which do not interfere with the normal working frequencies of the Forests. Training was carried out at Local Forest levels on the use of this equipment.

The system design work and the ordering of equipment for the revisions of the Grande Prairie system was completed. The system and equipment changes will be completed in the early part of the coming year and will conform to the standard used in the Lac La Biche, Peace River and Athabasca Forests.

Yates and Lambert Towers in the Footner Lake Forest and the Meridian and House Mountain Towers in the Slave Lake Forest were also installed to comply with the standard system.

In order to increase the range and utility of the portable 5 watt unit which is considered the basic equipment for communications, a gain antenna was designed and built which gives the portable units the same coverage as mobiles.

Communication systems were provided for the Wabamun Lake, Crimson Lake, Beauvais Lake and Park Lake parks.

FIRE RESEARCH

A statistical study of the 1968 forest fires was carried out resulting in two published reports, namely "Spring Fires 1968" and "Analysis of Firefighting Expenditure."

A study of the 1968 aerial detection program was completed and an internal report was published.

Studies on fire incidence and fire history were initiated. The program will be on a continuing basis.

TIMBER MANAGEMENT BRANCH

In the past year the Timber Management Branch has been reorganized to incorporate the timber related activities of the former Forest Surveys and Planning Branch and to adjust to the development of the Forest Land Use Section into a separate and important branch.

There are now five sections and an office service group within the Timber Management Branch. The major activities of each are described in the following report.

FOREST STATISTICS

In the past year, the Forest Statistics Section of the branch re-calculated the allowable annual cut for provincial forest lands and for each of the 108 timber management units in the province. Original inventory volumes were statistically updated for growth, fire and cutting which has occurred over the ten to fifteen year period since the province's forest resource was inventoried. An information system is being developed to enable comparison of forest depletion against growth by developing clear statements showing:

- (a) Current (updated) forest inventory for all management units
- (b) The net allowable annual cut which may be taken from each timber management unit and from other provincial forest lands at an assumed acceptable fire loss, and
- (c) A comparison of actual depletion from cutting, fire and industrial activity in each unit with the allowable cut and projected drain figures.

At the present time, the revised inventory shows the following:

Gross Forest Inventory Volumes in Cubic Feet (4"+DBH)

Coniferous Volume	36,018,114,000
Deciduous Volume	23,557,610,000

Allowable Annual Cut from Provincial Forests in Cubic Feet (4"+DBH)

Coniferous Volume	517,785,000
Deciduous Volume	476,960,000

Actual Cut from Provincial Forests in Cubic Feet (4"+DBH)

Coniferous Volume	121,666,000
Deciduous Volume	3,255,000

The above figures show that there is substantial under-utilization of provincial forests, with significant expansion possible in the harvest of coniferous pulpwood and poplar of all sizes.

FOREST INVENTORY

The Inventory Surveys Section has undertaken planning and development work in preparation for the trial development of new forest inventory procedures in P6 Management Unit.

Since much of the original forest inventory information is now over fifteen years old, the Director of Forestry appointed a task force composed of representatives of the Alberta Forest Service, the Canadian Forestry Service and the Forest Products Industry in Alberta, under the chairmanship of Mr. Arden Rytz, Secretary Manager of the Alberta Forest Products Association to examine provincial forest inventory and cruise procedures. The P6 inventory trials are being conducted in accordance with the recommendations of the task force, and are aimed at a consolidated forest survey technique which will yield information on stand age and condition as well as merchantability and wood volume.

In the intervening period until the new inventory is underway on an operational basis, the broad inventory type maps have been retyped on a more detailed basis to facilitate quota reconnaissance and other management planning work. Retyping completed in the past year may be summarized as follows:

Management Unit	Square Miles Re-Typed
L2	1,370
L1	792
F7	270
A3	252
A5	750
A7	650
Total	4,084

TIMBER MANAGEMENT PLANNINGS

The Management Planning Section has continued to develop and improve long term timber harvesting plans for individual timber management units. In addition to coniferous quota planning, seven deciduous (poplar) timber allocations were organized in the Slave Lake forest authorizing an annual cut for poplar of 10,910 acres per year. It is estimated that up to 60 million f.b.m. of poplar lumber and plywood logs may be produced from these poplar allocation areas. Following these sales, construction of a large sawmill-planer mill complex has begun near the town of Slave Lake, Alberta.

Two additional coniferous quotas were sold during the year in the Slave Lake Forest, increasing the authorized coniferous quota cut in the Slave Lake Forest by 15.8 million board feet. Coniferous timber quota and deciduous timber allocation certificates in force at March 31, 1970 may be summarized as follows:

Forest	No. of Quotas or Allocations	Coniferous Sawlog Quota MM f.b.m.	Coniferous Sawlog & Roundwood Quota in M of Cubic Feet	Deciduous Tbr. Alloc. in Acres
Crowsnest	14		5,291	
Bow River	28		5,779	
Clearwater-Rocky	40		7,954	
Edson	4		1,204	
Whitecourt*	22	63.4		
Grande Prairie	5	31.6		
Peace River	20	53.5		
Footner Lake	18	97.7		
Slave Lake*	50	119.4		10,910
Lac La Biche	14	26.6		
Athabasca	9	23.3		
Totals	224	415.5	20,228	10,910

*Showing quotas in the MacMillan Bloedel Lease and Reserve at their current level of 75 million f.b.m. per year

In addition to the above, the annual production authorized from the existing Forest Management Lease Agreements is 10 million cubic feet of sawlogs and 394,000 cords of pulpwood.

WOODS OPERATIONS

The Woods Operations Section continued work on the development of more efficient timber cruising, compilation and report procedures. Improved information will enable more reliable timber dues appraisals and provide an improved basis for establishing cutting requirements and restrictions on timber licences. Computer analysis of field information is planned.

The following table provides some information on the number and type of timber operations active in the province for the year:

(a) Woods Operations in Alberta 1969-70

	Timber Licences	Special Permits
Operations Active	297	105
Inspections Reported	1,660	501
Suspension of Operations for Cause	7	—
Penalties for Operating Cause	30	—
Seizures	6	1
Annual Operating Plans Approved	167	—

A further upward trend in the number of operating plans received and approved for timber operations was noted.

(b) Tree Scaling

Forty-five tree scale licences and three tree scale permits remain active. Of these, thirty were operated with a production of 41,732,000 FBM of coniferous timber. This is a decrease of 22,715,000 FBM (35%) from last year. The decrease reflects the trend of many operations formerly on a tree scale basis being changed over to the more efficient weigh scaling procedures.

(c) Weight Scaling

A total of eight weigh scales were employed throughout the province representing an increase of five weigh scales over the past year. In addition to the two active Forest Management Agreement areas a total of 23 Timber Licences reported production on the basis of weigh scaling.

Total Volumes Weigh Scaled	
Pulpwood	309,060 cords
F.B.M.	166,749,000 F.B.M.

(d) Log and Pulpwood Scaling

There were 38 licences on the conventional International 5/16 inch log rule. In addition a small amount of stacked cord scaling was done on the active pulpwood lease area.

Total Volumes Scaled

Conventional Saw and Peeler log scale	33,139,000 FBM
Pulpwood, stack cords	7,348 cords

There were no operations on the Alberta Cubic Foot Log Rule.

(e) Scaling Licences and Permits

	Number of Licences Issued	Number of Permits Issued
To Scale Sawlogs	—	99
To Scale Pulpwood	2	15
To Scale All Classes	7	2
Total	9	116

During the year 126 persons wrote scaling examinations of various types. Of the total 102 were successful and 24 were unsuccessful.

(f) Timber Audits

Audits commenced	146
Audits finalized	122

Purchase Records

Purchase records check commenced	140
Purchase records check finalized	122

The timber audits conducted throughout the year to establish the volumes accountable in returns for dues payment continued to include an accounting and segregation of the non quota from the quota production volumes that are chargeable under the quota system.

TIMBER DISPOSITION, RECORDS AND ACCOUNTS

At the beginning of the fiscal year in April of 1969 the market for softwood dimension lumber reached an unprecedented high, establishing an average planer mill net price of \$102.00 per M f.b.m. Commencing in May however the market began to weaken and by July 1969 the price had fallen to \$64.50 per M. From July until March the market remained weak, with the average mill net generally remaining well below \$65.00 per M.

Since the timber dues have been based on the average (over 12 months) mill net March 1 to February 28 each year, the dues established May 1, 1969 were \$9.50 per M f.b.m., the highest timber dues ever established in Alberta. This dues rate reflected the high market which had existed prior to May of 1969, but became an exceptionally heavy assessment for the industry to carry on the poor market which prevailed for most of the year.

A more flexible dues assessment system based on a moving three month average and which moves more quickly with the market was developed during March of 1970 for implementation later in the year.

The poor market conditions and high dues resulted in an estimated 45% or 15 of 33 timber licences offered for competitive sale not being sold. A further reduction was noted in the granting of only 17 licences and issuance of 50 permits during the year, a decrease of 37 licences and 21 permits from the preceding year. Granting of 45 licences covering 332,209,271 F.B.M. and 15,778,692 cubic feet green coniferous timber to quota holders reflected a decrease of nine licences from last year. In addition a number of licences set up for quota holders and permits prepared on the basis of timber applications received were not executed because of the prevailing poor market conditions.

A total of 37 penalties were assessed for various infractions such as waste, trespass cutting, Miscellaneous Timber Permit, overcuts and inadequate records. A breakdown is:

Woods Operation	27
Timber Audit	3
Timber Accounts and Records	7

SUMMARY OF TIMBER OPERATIONS ON PUBLIC LANDS

	Forest Management Agreement Areas, Timber Licences and Special Permits 1969 - 1970	Miscellaneous Timber Permits 1969 - 1970	Total 1969 - 1970
Number of Licences, Special Timber Permits	585	2,663	3,248
Christmas Trees (number)	—	9,929	9,929
Fuelwood (cords)	18	3,380	3,398
Lath (pieces)	3,322,200	585,000	3,907,200
Lumber and Plywood Logs, Coniferouts (FBM)	493,143,096	9,694,367	502,837,463
Mine Ties (pieces)	—	—	—
Pulpwood (cords)	321,381	35,911	357,292
Plywood Logs, Poplar (FBM)	2,763,459	—	2,763,459
Railway Ties (pieces)	305,748	—	305,748
Round Timber (cubic feet)	928,898	992,556	1,921,454
Shingles (pieces)	—	—	—
Slabs (cords)	207	—	207
Trees for transplanting (number)	—	4,244	4,244
Timber Seizures	7	22	29
Custom Sawmill, Planing Mill or Timber Processing Plant Permits (number)	—	—	85
			65

FORESTRY

FOREST PRODUCTS TREND

Ten Year Period

1960 - 1970

Year	Number Licences, Special Timber Permits	Number Miscellaneous Timber Permits	MM f.b.m. Lumber - All species	MM f.b.m. Plywood Logs - Coniferous	MM f.b.m. Plywood Logs - Deciduous	MM lin. ft. Round Timber Poles, piling, posts	M cords Pulpwood	M cords Fuelwood	M pieces Railway Ties	M pieces Mine Ties	M pieces Lath	Number Christmas Trees	Number Trees for Transplanting	Equivalent in 1,000 of cubic feet
1960-61	527	5,953	243	11	8	23	327	20	420	14	1,602	25,539		81,560
1961-62	548	4,075	288	20	13	20	271	8	211	27	2,686	17,070		85,315
1962-63	571	4,575	314	23	14	29	283	13	634	25	3,231	44,347		95,363
1963-64	610	5,866	381	31	22	38	300	7	659	5	3,764	24,880	2,510	112,103
1964-65	646	3,083	319	18	11	28	390	3	393	nil	2,210	37,008	2,347	105,114
1965-66	568	2,795	309	20	13	23	379	5	432	nil	2,027	19,644	6,952	101,628
1966-67	485	2,790	290	56	12	23	379	4	443	6	2,572	27,127	1,269	104,747
1967-68	427	2,552	272	60	4	19	244	2	554	4	1,710	15,884	1,919	91,176
1968-69	515	2,754	467*	—	4	2**	316	3	331	2	2,500	13,180	3,878	115,407
1969-70	585	2,663	503*	—	3	2**	357	3	306	nil	3,907	9,929	4,244	124,921

* — includes coniferous plywood logs

** — recorded in cubic feet

TIMBER PRODUCTS

Fiscal Year 1969 - 70

VOLUME	PRODUCT	UNIT PRICE	VALUE
9,929	Christmas Trees	\$ 3.00	\$ 29,787
3,398 cords	Fuelwood	\$ 10.00	\$ 33,982
3,907,200 pieces	Lath	\$ 1.15 (50 pcs. per bundle)	\$ 89,866
502,837,463 FBM	Lumber and Plywood Logs, Coniferous	\$ 72.00	\$ 36,204,297
— pieces	Mine Ties	\$ 0.50	\$ —
357,292 cords	Pulpwood	\$ 17.50	\$ 6,252,614
2,763,459 FBM	Plywood Logs, Poplar	\$ 38.00	\$ 105,011
305,748 pieces	Railway Ties	\$ 2.67	\$ 816,347
1,921,454 cubic feet	Round Timber	\$ 0.53	\$ 1,018,371
207 cords	Slabs	\$ 12.00	\$ 2,485
4,244	Trees for transplanting	\$ 2.00	\$ 8,488
	TOTAL		\$ 44,561,248

FORESTRY

SILVICULTURE

On the surface the program remained on a par with the 1968-69 season; however, planning and preparatory work has been underway to enable the significant increases projected for the next couple of years. Conventional planting is expected to reach 7 MM in 1973 on the basis of seedbeds being sown this spring.

In addition to the conventional program, containers grown in our own facilities will continue to add approximately 1.5 MM seedlings annually to the program along with an additional 1 to 2 MM containers grown by North Western Pulp and Power Limited under contract for use on their lease area. This part of the program will increase as overall container success increases.

The extension forestry program with regards to community woodlots is being stepped up. Work is progressing very favourably in the Census District 14 area (Edson and Whitecourt) and preliminary plans are also being made in the Grande Prairie area.

The following tables summarize the projects completed during the last fiscal year as well as a 10 year summary.

Ten Year Summary

Year	Scarification (Acres)	Seeding (Acres)	Seed Collected (lbs.) (oz.)	Thinning (Acres)	Seedlings Planted (number)	FORESTRY		
						Conventional	Container	Extension Forestry Seedlings Shipped
1960-61	5,964	1,145	3,851 0	—	24,000			
1961-62	10,013	3,475	6,672 0	—	125,000			
1962-63	10,688	7,900	1,540 0	—	173,000			
1963-64	9,015	8,242	325 0	281	261,000			
1964-65	10,477.8	6,769.5	4,361 0	1,005	325,083			
1965-66	18,495	11,141	221 0	715	700,751			
1966-67	17,902	13,001	444 0	600	876,072			
1967-68	27,921.1	20,323	2,073 3	790.37	745,407		238,884	
1968-69	17,294	9,099	7,835 10	2,240.8	523,570		1,122,709	20,500
1969-70	12,091.2	10,426	855 2	2,759	666,619		672,584	8,000

SILVICULTURE

Totals by Forests

Forest	Scarification (Acres)	Seeding (Acres)	Seed Collected Pine (lbs.) (oz.)	Thinning (Acres)	Seedlings Planted Conventional (number)	Container (number)
Crowsnest	903	592	119 0	75	49,800	51,800
Bow River	700	150	107 14	2,500	50,000	37,000
Clearwater-Rocky	224	187	450 14	103	77,377	240,800
Edson	229.2	88	117 7	36	60,400	12,700
Whitecourt	1,020	725	2 0	—	112,121	40,500
Grande Prairie	—	6	40 8	1	51,121	19,000
Peace River	2,214	2,214	— —	—	84,000	32,384
Footner Lake	259	4	— —	38	7,200	37,650
Slave Lake	3,802	3,720	— —	6	78,600	118,950
Lac La Biche	2,000	2,000	17 7	—	51,000	32,000
Athabasca	740	740	— —	—	45,000	49,800
TOTAL	12,091.2	10,426	855 2	2,759	666,619	672,584

Extension Forestry:

White Spruce 4,500 Seedlings shipped
Lodgepole Pine 1,800 Seedlings shipped
Others 1,700 Seedlings shipped

Silvicultural Work by Industry

Crowsnest Forest:	75 acres	scarified
	147 acres	thinned
Bow River Forest:	1,125 acres	scarified
Clearwater-Rocky Forest:	509.7 acres	scarified
Edson Forest:	6,369.6 acres	scarified
	715.5 acres	bladed
	7 acres	thinned
	1,637,700 container seedlings planted	
Whitecourt Forest;	557 acres	scarified
Grande Prairie Forest:	179 acres	scarified
Lac La Biche Forest:	900 acres	scarified

TRAINING BRANCH

An interesting variety of programs were presented through the Training Branch again this year. Major efforts were expended on the in-service technician training program, the technician-level Forest Technology course, and fire control training. Work experience and training were extended to young men through the Junior Forest Ranger program, and several short courses were presented at various times.

The two-year Forest Technology course continued to be offered through N.A.I.T. A total of 34 students graduated in the class of 1969, finding employment in the natural resources field throughout western Canada and abroad.

Twenty-two forest technicians were graduated through the Advanced Forestry course. The class of 1969 consisted of 17 Alberta Forest Officers, 1 Alberta Parks' Officer, 2 National Park Wardens, 1 Yukon Forest Service Ranger and 1 MacKenzie Forest Service Ranger.

These are the courses which were given at Hinton during the fiscal year:

Course	Length (weeks)	Total Attending
Forest Technology Course	7 (conc'l.)	34
Spring Forestry Camp	1	28
Forest Technology Course	26 (cont'd)	28
Fall Forestry Camp	½	37
Advanced Forestry Course	23	22
Basic Ranger Course	6 (conc'l.)	15
Basic Ranger Course	4 (cont'd)	19
Fire Behaviour Course	2	22
Crewboss (3 courses)	1 each	47
Timekeeper (2 courses)	1 each	26
Sectorboss Course	1	11
Intro. Fire Control	½	15
Fire Cont. for Industry	1	12
Public Information Officer	½	11
Management Training Seminar	1	30
Inservice Training Seminar	½	11
F/W Law & Enforcement	1	20

In addition, the following field courses were supervised by the fire control training team:

Birddog - Mixmaster Course	1	16
Lookoutman (4 courses)	1 each	59
Strawboss Course	1	24
Firefighter (12 courses)	1 each	301

The Strawboss and Firefighter courses were given as part of the provincial fire certification scheme. The total cumulative numbers of all certified trainees is shown in the following table. Some of the original titles have now been phased out, and the remainder will be lost next year. The response to and results of this program are very encouraging.

FIRE TRAINING AND CERTIFICATION

Category	Fiscal Year — ending							
	1963	1964	1965	1966	1967	1968	1969	1970
Fireboss ^a	20	42	43	49	58	51	4	0
Fire foreman ^a	3	13	23	24	48	19	15	15
Sector boss ^b	—	—	—	—	—	—	16	27
Crewboss ^b	—	—	—	—	—	—	61	108
Strawboss	—	5	10	15	76	147	233	310
Firefighter	—	—	52	361	896	1,198	1,365	1,666
Camp Foreman	—	—	—	—	2	2	2	2
Timekeeper I & II	1	1	1	29	42	65	79	109
Cooks	—	—	—	—	4	4	4	5

a — old category, being terminated

b — new category

New untrained field staff is still required to take correspondence courses in mathematics, surveying and forestry. A total of 17 mathematics and 18 surveying courses were completed — representing a total of 288 lessons corrected.

The Junior Forest Ranger program was continued with five camps of 12 boys each — a total of 60 young men. This program provided eight weeks of work and training in the resource management field — and resulted in the completion of many forest and environmental improvements. Camps were located in the Grande Prairie, Edson, Rocky-Clearwater, and Crowsnest Forests.

The Cache Percotte School Forest was established under Order-in-Council as a study area. The Cache Percotte watershed study was continued, with records contributing to the International Hydrologic Decade. This project, consisting of two small watersheds, is still in the calibration stage.

A portable classroom and temporary bunkhouse trailers were obtained to handle the increased training load, pending construction of new facilities.

John Morrison was added to the staff to head the fire control training team. He was a fire control staff officer with the U.S. Forest Service before his appointment.

FISH AND WILDLIFE DIVISION**REPORT OF THE DIRECTOR***S.B. SMITH*

The past twelve months were characterized by continuing changes in operation of the Fish and Wildlife Division. Again, as in the past, the hunting and fishing public increased, not only in numbers, but perhaps more importantly, in mobility. Whereas in past years remote areas with difficult access seldom were penetrated by anglers and hunters, a marked increase was reported by field officers in the use of all-terrain vehicles (ATV's) and aircraft. Continuing expansion of forestry, mining and petroleum industry roads also provided new access opportunities for the angling and hunting public. As a natural consequence of increased numbers and changing distribution of anglers and hunters, field operations of enforcement officers and biologists likewise expanded. In some cases, this resulted in the necessity for acquisition of suitable ATV's and the increased use of aircraft and river boats. The necessity for staff increases to keep abreast of increased fishing and hunting pressures is thus becoming apparent. Detailed statistics of licence sales, revenue and similar items are provided elsewhere, but it is worthwhile to note that resident angling licence sales alone increased by almost 21,000 over the previous year from 139,253 to 150,225 or slightly over 15 percent. A slight drop was recorded in the sale of Wildlife Certificates, doubtless occasioned by closure of the hunting season for pheasants and Hungarian partridge, because of the levels of mercury residues found in these birds. Non-resident alien and non-resident Canadian bird licences were down over 1,500 from the previous year, while resident bird licences declined almost 7,000. Total revenue from the sales of game licences was reduced about 2.5 percent.

During 1969, operation of commercial fisheries was placed under jurisdiction of the Freshwater Fish Marketing Corporation, insofar as marketing was concerned. The corporation has been designated as the sole marketing agency for fish produced in Alberta, Saskatchewan, Manitoba, the Northwest Territories and western Ontario, and commenced operation on May 1st, 1969. In the first year of its operation, the corporation purchased 2,340,000 pounds of fish from Alberta fishermen, at a price substantially higher on the average than had been previously received. A degree of stability now exists in the central Canada commercial fisheries never before experienced, and this factor has been of great benefit to Alberta fishermen. The Director of Fish and Wildlife for Alberta is also a director of the corporation and Fish and Wildlife Officers in Alberta are also corporation inspectors. Plans are now being developed jointly by the corporation and the Fish and Wildlife Division to experiment with new fishing gear, to construct new fish processing plants, to expand rainbow trout fish farming operations, and to exploit presently unharvested non-sporting species of fish such as suckers and ling, the latter of which has potential to become an important commercial species in Alberta. In general, the future for commercial fisheries in Alberta is more optimistic than has been the case for several years.

Distribution, quantity and quality of waterfowl habitat was excellent in most of Alberta, with the result that a large breeding population and good spring weather produced one of the best fall flights of waterfowl in many years. Hunting opportunities were excellent, with waterfowl well distributed. The fall was generally wet and waterfowl depredations on grain were the highest on record. Approximately \$900,000 was paid from the Wildlife Damage Fund, largely for crop losses. The number of waterfowl hunters was virtually identical in 1968 and 1969, but the total kill of ducks and geese was more than

300,000 higher in 1969 than in 1968, reflecting good production of young. In 1969 almost 840,000 waterfowl were harvested in Alberta. Gross fluctuations in kill of waterfowl in Alberta are largely a reflection of availability of birds, and do not appear to be related to allowable daily bag limits or changes in number of hunters, at least within the period 1967-69 inclusive. Integration of water-fowl research and management in Alberta was further extended by closer co-operation between biologists of the Fish and Wildlife Division, Canadian Wildlife Service, and Ducks Unlimited (Canada). The work of many provincial agencies is complemented by efforts of Ducks Unlimited, which has built over 300 water impoundments in Alberta. During 1969, Ducks Unlimited again worked closely with the Fish and Wildlife Division, and enhanced considerably the programs dealing with waterfowl habitat.

During 1969 it became apparent that activities of lawbreakers were up sharply. With no increase in the number of Fish and Wildlife Officers, investigations increased from 3,025 the previous year, to 3,669 in 1969. Convictions increased from 1,102 to 1,387, or almost 25 percent. In some areas, night hunting (jacklighting) is carried out with impunity, and without any evident regard for the safety of buildings, equipment or livestock, or even the personal safety of landowners. New methods and new equipment must be used to combat this dangerous and illegal practice, and by 1970 it is hoped that most vehicles will be equipped with two-way radios. Greater use of aircraft at night will also be required. The number of field officers was approximately the same in 1969 as in 1959, but the number of people involved in hunting and angling has increased dramatically, and seasons, bag limits and angling and hunting opportunities have been generously increased. With less restrictive regulations, it might be expected that violations would decrease. Indeed, the reverse seems to be the case; people apparently are showing an increasing tendency to disregard wildlife or fishery regulations. More field officers are urgently required. Not only are they required to contain sharply increased violations, they are also required to provide increased assistance to biologists in many field programs, particularly in the field of research and in pollution control.

During the past 12 months, increased emphasis was placed on research. In wildlife, fishery and pollution research, staff and equipment acquisitions have been made in order to enhance ongoing programs or to commence new investigations. In the second year of operation of the pollution research section, liaison was increased with the Environmental Health Services Division of the Department of Health, in order that programs could be jointly supported which could provide biological base-lines for Alberta streams. Considerable effort was also extended to improved bioassay methods and capabilities. Pollution research should be increased sharply, if biological knowledge of pollution in Alberta is to keep pace with increased technology and increases in quantity and complexity of materials placed in the environment. The main emphasis on fishery research in 1969 was placed on a continuing investigation of the spawning ecology of whitefish, the most important commercial species of fish in Alberta and other parts of central Canada. A study on the wall-eye population utilizing spawning areas near Richardson Lake, south of Fort Chipewyan was concluded in 1969 to be presented at the Western Region meeting of the American Fisheries Society, in July, 1970 in Victoria. In wildlife research, the main accent continued with an investigation of the effects on pheasants of shooting hens as well as cocks, and on the possibility of planting breeding hen pheasants in the spring, where suitable habitat is available. Also of interest was continuing research into deer populations in prairie and parkland habitat, centered at the Canadian Armed Forces Base, Wainwright, where military authorities have assisted by permitting experimental deer seasons on the base, and by co-operating with a regular sampling program. In general, progress has been slower than expected, both in wildlife and in fishery research, but several research projects should cul-

minate in publication of scientific papers in recognized journals in 1970 and 1971.

The fish and wildlife resources of Alberta continue to hold a place of pre-eminence in Canada, particularly in view of the extent of the resources, and the relatively light angling and hunting pressure. Of greatest importance is the need for recognition by Albertans that the fish and wildlife of the province has great value, not only in economic terms, but also in providing social assets for both the hunter and angler, as well as the non-consumptive user. If such recognition is forthcoming, decisions regarding protection and maintenance of fish and wildlife resources will be easily accepted; if not, substantial losses of fish and wildlife will be inevitable.

LAW ENFORCEMENT BRANCH

During the 1969-70 fiscal year a great amount of time and effort went into rewriting The Game Act. The new Act known as the Wildlife Act was introduced in the spring sittings of the Alberta Legislature and will come into force on July 1, 1970. The Wildlife Act designed around the total wildlife concept required many hours of work and preparation and involved two special meetings with the Fish and Wildlife Advisory Council.

In August, 1969 a law enforcement course was conducted at Forest Technology School at Hinton, Alberta. Twenty officers were in attendance and received some 35 hours of classroom instruction. The course was designed to bring personnel up to date on changes in law and to provide a greater working knowledge of Acts and regulations enforced by the division. Ten hours of self-defence training was provided in addition to classroom studies.

Early in 1969 the division entered into a program whereby privately owned vehicles will no longer be utilized for division services. Twenty new units were introduced into field operations. Initial assessment indicates the operational change will result in much more flexibility in our field programs. It is expected the complete phasing operation will be completed in 1971.

Radio communications equipment was supplied to four remote detachment areas. This was the initial step in building a communications system for the division and is also expected to be completed in 1971.

The number of infractions handled by the enforcement section was increased over the previous year. The overall number of charges laid increased by 24.8% over the previous comparable period. The increase in prosecutions is significant, in that the number of enforcement officers in the field was virtually the same as the previous year. In assessing the prosecution structure, loaded firearms violations once more constituted the major portion of cases handled under The Game Act. However, a sharp rise was noted in cases involving illegally taken game and other infractions of a more serious nature. It was also observed that serious infractions tended to carry on well into the winter and spring seasons. Jack-lighting again was a serious problem and reports of marketing hunting were received from different areas. One market hunting ring was broken and convictions registered. An estimated 10 moose had been taken and sold by the convicted party.

In the field of fisheries enforcement, analysis of the prosecutions indicates an increase in the overall number of violations processed in the courts. Angling without licences was the most common offence, but there was a significant increase also in the number of persons convicted for angling in closed streams. A major problem with fishing in closed waters was experienced in the St. Paul - Lac La Biche area. This area in particular appears to be an active spot for both fish and game violators and has been subject to increased enforcement effort. Pollution problems are on the increase, prosecution has proved difficult in view of the complexities associated with pollution investigations. Where convictions were registered, substantial penalties were invoked by the courts.

Fish and Wildlife Officers attended and contributed to meetings throughout the province. Public relations is an important function of any successful enforcement program and forms a vital part of every officer's activities. During the year officers attended some 558 meetings and were involved in numerous radio talks and television appearances, in order to supply information to the public.

Re-organization of the department's Hunter Training - Conservation Program has placed the responsibility for local program co-ordination with field officers within their respective areas. The change was readily accepted by the public and appears to be working satisfactorily.

During the year the Fish and Wildlife Division regretfully lost one of its highly respected field Officers. George Senz, Fish and Wildlife Officer in charge of the Vermilion Detachment area passed away on February 3, 1970 shortly before he was to retire. Officer Senz was a veteran officer and had spent 31 years with the department. The Fish and Wildlife Division wishes to extend sincere condolences to the Senz' family and extends appreciation for the contributions made by him to the improved management of the wildlife and fisheries resources in Alberta.

Table 1

PROSECUTIONS

	1966-67	1967-68	1968-69	1969-70
Investigations (Total)	925	890	3,025	3,669
Prosecutions	867	854	1,146	1,441
Convictions	845	833	1,102	1,387

Table 2

FREQUENCY OF VIOLATIONS
RESULTING IN CONVICTION

Hunting	1968-69	1969-70
Loaded firearm in motor vehicle	309 - 42.9%	401 - 41.8%
Illegal possession of game	107 - 14.5%	121 - 12.6%
Unlawfully hunting in a closed season-area	53 - 7.4%	75 - 7.8%
No licence	50 - 7 %	87 - 9 %
Fisheries		
Unlawfully angling without licence	184 - 48 %	181 - 42.3%
More than one line, angling through ice, unattended line.	65 - 17 %	127 - 29.7%
Closed streams	19 - 5 %	42 - 9.8%

Table 3

Regional Summary of Prosecutions & Investigations

	Prosecutions	Investigations*
Region 1 Lethbridge	193	218
Region 2 Calgary	290	397
Region 3 Red Deer	143	484
Region 4 Edson	276	155
Region 5 St. Paul	250	565
Region 6 Peace River	207	376
Headquarters (Edmonton)	54	33
Other Agencies (R.C.M.P.)	28	—
	1,441	2,228

*Investigations cover incidents where an investigation was conducted but no court action resulted.

FISHERIES BRANCH

Fisheries staff attended and contributed to scientific meetings in Ottawa, Winnipeg, Wyoming and Montana, and also the fishing industry exposition (Fish Expo) in Seattle, Washington. Paul Paetkau, Pollution Biologist, attended a course in pollution ecology at the Robert A. Taft Sanitary Engineering Center, Cincinnati, Ohio and R. J. Paterson, Senior Management Biologist, attended a course in administrative management at Pennsylvania State University. In addition, a special seminar was held in Calgary for all fishery staff on stream survey techniques.

Fisheries staff took part in a new venture presented by the department during the 1970 legislative session. A short evening course of lectures and discussions on ecology was given for Members of the Legislative Assembly, on a voluntary basis. Those participating, both departmental staff and MLA's seemed very pleased with the results.

The Fisheries Branch continued its production of fishery reports, adding the first of a new series of pollution reports. These reports are technical in nature and are produced in limited quantities, but are available to any individual on request.

No major changes in legislation were passed in 1969-70. A new 3-day angling licence for non-residents was introduced. It is evident, however, that many non-residents travelling through Alberta are not yet availing themselves of the opportunity to fish.

The Freshwater Fish Marketing Corporation commenced operations on the prairies on May 1, 1969. This is a Crown corporation set up under federal-provincial sponsorship, and is licenced as the sole buyer of commercially caught fish in Alberta. Fishermen can only sell their catch to the corporation or directly to the consumer. During 1969 the corporation established a series of agents located at strategic points across the province and established lake prices for fish. It is attempting to develop markets for freshwater fish from the prairies both within Canada and outside, and to do this is accenting the necessity for a high quality product. Its head office is located in Winnipeg.

POLLUTION

Pollution problems occupied an increasing proportion of the working time of staff in the field. Particular attention was paid to new coal mining operations in the Crowsnest and Coal Branch areas, and to numerous problems involving oil spills, seismic operations and land clearing adjacent to rivers. Several companies and individuals were prosecuted. Increasing time was devoted to the inspection of plans for coal exploration and the establishment of gas and other industrial plants. Stream surveys were carried out in one drainage area west of Calgary prior to the commencement of coal exploration, so that some assessment of the effects of such land disturbance can be made.

The Pollution Section established a biological monitoring program covering most of the province's major rivers. A bioassay laboratory was also established and employed in the assessment of pollution damage, in cases where harm to the aquatic environment was suspected.

Increasing numbers of samples of fish have been analysed for pesticide contamination from drainages throughout the province. These analyses were conducted by the Dairy and Food Laboratory of the Department of Agriculture. In addition, fish samples from a number of locations were sent to the Fisheries Research Board Laboratory in Winnipeg

for mercury analysis. As a result of these, it was necessary to advise residents of the Edmonton area not to eat walleye, pike, sauger and goldeye from the North Saskatchewan River downstream from Edmonton.

CENSUS STUDIES

Efforts were increased to collect data on the movements of anglers, their fishing success and their expenditures. These data should provide a basis for the development of future management plans and necessary statistics on the economic value of the resource. Economic studies were commenced by students of the Department of Agriculture, Economics and Rural Sociology at the University of Alberta. For these, questionnaires were sent to a sample of all resident and non-resident anglers in 1969. In addition, creel census studies were carried out by division staff at a number of lakes and rivers, with particular attention being paid to specific areas such as the Elbow River, near Calgary, and Seibert Lake, in northeast Alberta.

ACCESS

For some time there has been concern about the lack of public access to rivers and streams in the Calgary area, a problem which is likely to increase in many other areas of the province. As a result of actions by the Department of Highways, a plan to alleviate this situation was developed and improvements were evident by the end of the year.

GULL LAKE

Gull Lake has been the focus of studies by the Water Resources Division, Department of Agriculture, with an attempt to determine methods to prevent further reduction in water levels in this lake and the possible stabilization of the lake at a suitable level. Fisheries staff were actively engaged in studies to determine the possible effects of water diversion on the production of aquatic life in the lake.

COLD LAKE

An experimental program to introduce coho salmon into Cold Lake was developed and salmon eggs for this project were acquired from the State of Alaska. A special holding pond was constructed with the assistance of the Water Resources Division of the Alberta Department of Agriculture, at the mouth of the Medley River, in readiness for the planned introduction in May 1970. The fish would be held in this pond so that they might develop a tendency to home to the river at spawning time.

LAKE AND STREAM SURVEYS

Surveys were carried out on a number of lakes and streams throughout the province, with a view to improving the management of fish in these locations. Increasing emphasis was given to alpine lakes, since an increasing number of anglers are hiking into more remote lakes and enjoying the fishing experience to be obtained there. Emphasis is being placed upon maintaining populations of native fish in wilderness areas.

FISH DISTRIBUTION STUDIES

Fish distribution studies were carried out in the Peace and Red Deer River drainages. With increasing development and pollution of our major rivers it has become increasingly

important to know more about the natural distribution of the major river species and their habits.

FLOATINGSTONE LAKE

The study of pike at Floatingstone Lake, west of St. Paul, entered its second year. Studies were concentrated upon the spawning requirements of the species and their behavior during the spawning season. About 1,500 pike were tagged. Returns from anglers provided data on the movements of the fish during and after spawning. This was combined with a voluntary creel census.

REHABILITATION

Two small reservoirs located east of Calgary, Severn Reservoir and Anderson's Reservoir No. 2, were treated with fish toxicant to remove populations of suckers prior to reintroduction of trout.

A more extensive program was carried out in the Edson Region, under A.R.D.A. sponsorship, where Victor, Grande Cache, Pierre Grey's and Chrystina Lakes were treated. These lakes were treated to remove populations of native fish prior to the establishment of regular trout planting programs. Fish barriers were constructed on the outlets of three of these lakes with the assistance of the Alberta Forest Service.

MILLER'S LAKE AERATION PROJECT

The Miller's Lake aeration project was continued. During the winter of 1969-70 aeration was not commenced until oxygen levels had markedly dropped, in early February. Subsequent aeration did not prevent some winterkill from occurring. Results gained from this study so far indicate that aeration has only limited application in the prevention of winterkill in Alberta's relatively rich lakes.

RESEARCH SECTION

Research work was continued on a study of the spawning ecology of lake whitefish. This work is yielding information which will be of significant value in the future management of this species.

FISH FARMING

Interest in game fish farming continued to increase. Early results of research work carried out in Manitoba suggested that there may be a potential for fish farming in shallow natural lakes across the prairies. Consideration was given to amendment of the regulations to permit this type of fish farming on a limited basis in Alberta. The Freshwater Fish Marketing Corporation agreed to accept the responsibility of marketing trout produced from these operations.

NORTHERN ALBERTA LAKE SURVEYS

The program of lake and stream surveys sponsored by the Northern Alberta Development Council concluded its field operations on March 31, 1970. During 1969 field surveys were carried out on lakes in the Peerless Lake area, and also in the Buffalo Hills and Caribou Mountains areas. Final reports on these surveys will be completed for distribution in 1970-71.

CANADA LAND INVENTORY

The Sport Fish Capability Study, a part of the Canada Land Inventory program, continued at an accelerated pace in 1969. Field crews examined lakes and streams in many areas of the province and the first maps were prepared for submission to the Federal Government.

FISH CULTURE AND STOCKING

The total production of yearling and fingerling trout and kokanee from the Calgary Hatchery and the Raven Rearing Station was 3,639,995, a figure similar to that of 1968-69. Rearing facilities continued to be operated at maximum capacity. Design and testing for the new hatchery facility were continued, with construction expected to commence in 1971.

Brown trout introductions were continued in the Crowsnest River, as were introductions of kokanee in Narrow Lake. Golden trout were planted in a series of alpine lakes near Pincher Creek. Introductions of walleye eggs were continued in Eagle Lake, near Strathmore, in Gregg Lake, in Entrance Provincial Park, and in the Owl River, tributary to Lac La Biche. Introductions of warm water species included 1,400,000 walleye (eyed eggs), 3,871 adult pike and 122 adult perch.

COMMERCIAL FISHERIES

Commercial fish production for the fiscal year 1969-70 decreased slightly with respect to the total production of all species. Owing to a relative shift towards greater whitefish production and an increase in prices for those species sold for human consumption, prices to the fisherman and value as marketed showed a favorable increase.

A record of commercial fish production for the fiscal years 1949-50 to 1969-70 is presented in Figure 3. Landings of lake whitefish for the same period are presented in Figure 4 and landings of walleye for the fiscal years 1939-40 to 1969-70 are shown in Figure 5.

TABLE I SALES OF LICENCES – FISHERIES

Kind	1965-66 No.	1966-67 No.	1967-68 No.	1968-69 No.	1969-70 No.
Angling Licences –	122,537	133,092	136,693	–	–
Resident & Non-Resident Canadian	–	–	–	139,253	150,225
Seasonal Non-Resident-Non-Canadian	–	–	–	1,621	701
Limited Non-Resident-Non-Canadian	–	–	–	–	2,052
Spear Fishing Licences	87	141	147	244	231
Sturgeon Angling Licences	–	–	–	135	56
Commercial Licences	39	–	–	–	–
Fisherman's Commercial Licences	4,468	4,360	4,758	–	–
Zone Commercial Licences	–	–	–	378	372
Zone Fisherman's Licences	–	–	–	1,219	1,594
Zone Recreational Fishing Licences	–	–	–	103	37
Domestic Licences	63	51	78	109	104
Fish Dealer's Licences	53	51	70	56	–
Fish Marketing Licences	–	–	–	–	7
Commercial Game Fish Farm Licences	6	6	5	7	7
Private Game Fish Farm Licences	20	26	37	46	58
Totals	127,273	137,727	141,788	143,171	155,444

TABLE II COMMERCIAL PRODUCTION OF FISH BY SPECIES

Species	1965-66 Lbs.	1966-67 Lbs.	1967-68 Lbs.	1968-69 Lbs.	1969-70 Lbs.
Whitefish	1,918,912	1,836,987	2,422,379	2,063,057	2,450,022
Trout (lake)	7,623	3,528	2,787	4,425	3,332
Walleye (pickerel)	372,576	286,286	221,087	283,035	200,257
Perch	646,996	274,509	178,844	155,127	224,477
Pike	1,248,792	1,244,664	944,510	1,431,879	1,004,104
Tullibee	4,402,771	6,492,126	5,859,370	6,966,094	6,189,233
Ling	180,597	300,145	588,414	722,074	389,899
Suckers	115,567	88,418	220,016	330,211	344,171
Goldeye	391	1,807	284	737	276
Totals	8,894,225	10,508,470	10,437,691	11,986,639	10,805,771

	Weight Lbs.	Value to Fishermen \$	Value as Marketed \$
Totals for year 1965-66	8,894,225	720,886.32	1,188,319.17
Totals for year 1966-67	10,508,470	832,711.79	1,397,485.90
Totals for year 1967-68	10,437,691	874,525.89	1,559,976.04
Totals for year 1968-69	11,986,639	932,940.89	1,466,369.67
Totals for year 1969-70	10,805,771	1,017,162.89	1,727,743.78

TABLE III FISH EXPORTED FROM ALBERTA 1969-70 BY SPECIES

Species	Canadian Markets Lbs.	U.S.A. Markets Lbs.	Total Lbs.
Whitefish	1,199,723	98,531	1,298,254
Trout (lake)	6	—	6
Walleye (pickerel)	69,585	40,138	109,723
Perch	150,456	5,433	155,889
Pike	323,130	71,833	394,963
Tullibee	387,398	—	387,398
Suckers	75	—	75
Totals	2,130,373	215,935	2,346,308

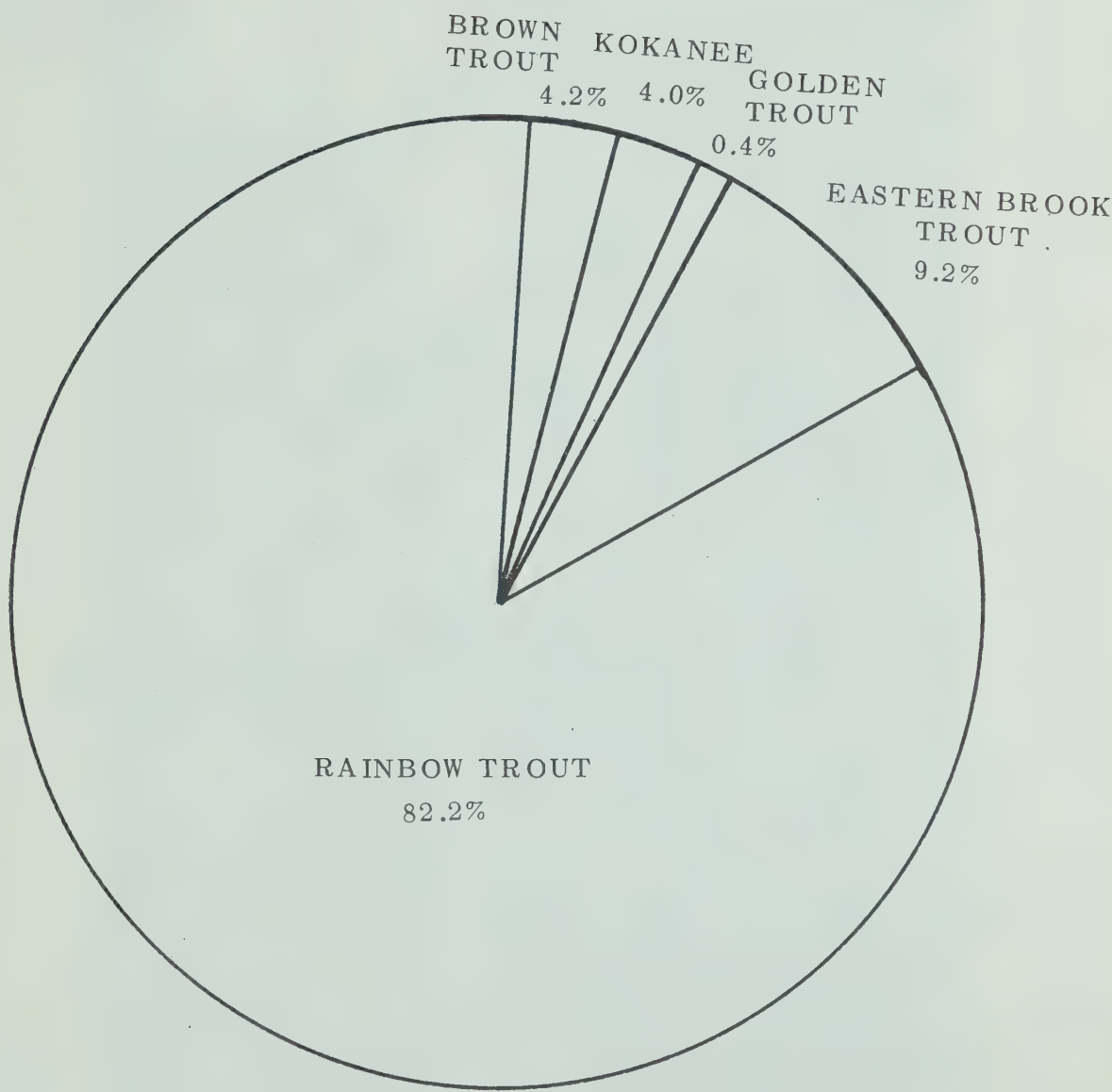


FIGURE 1. GRAPHIC REPRESENTATION OF HATCHERY
PRODUCTION BY SPECIES IN 1969

FIGURE 2.ANGLING LICENCE SALES IN ALBERTA
1959-70

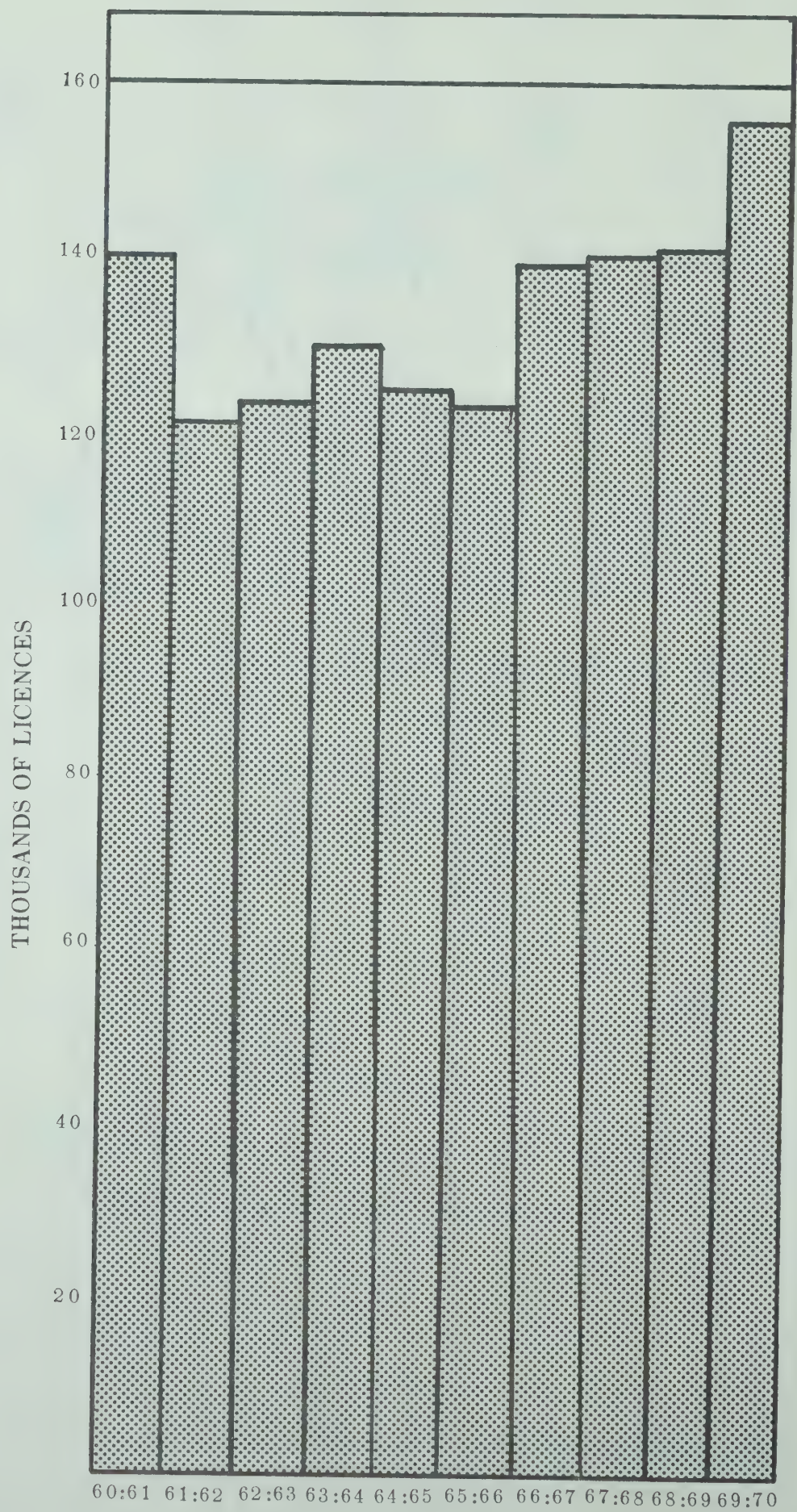


FIGURE 3.

PRODUCTION OF COMMERCIAL FISH IN ALBERTA 1949-70
MILLIONS OF POUNDS

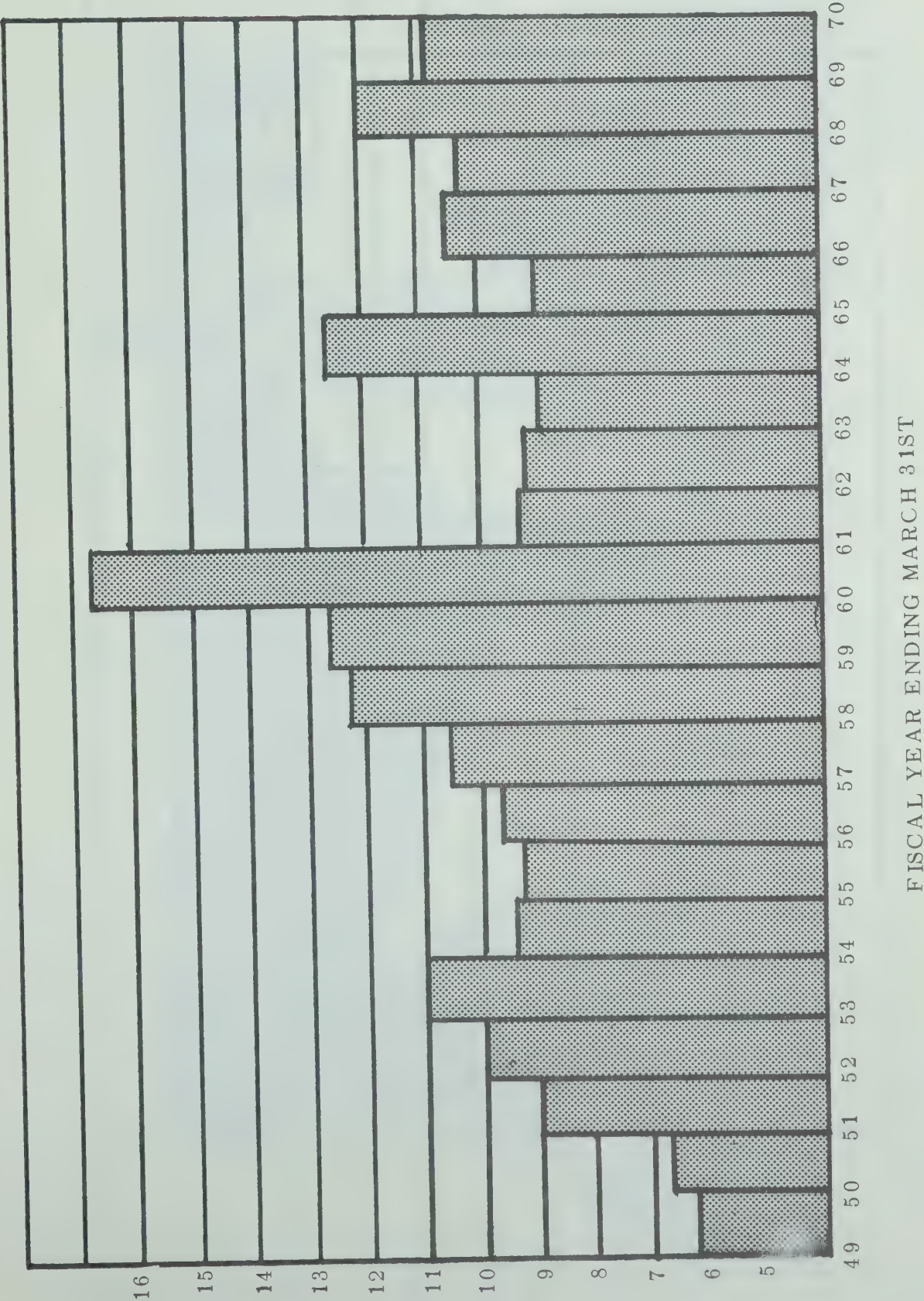


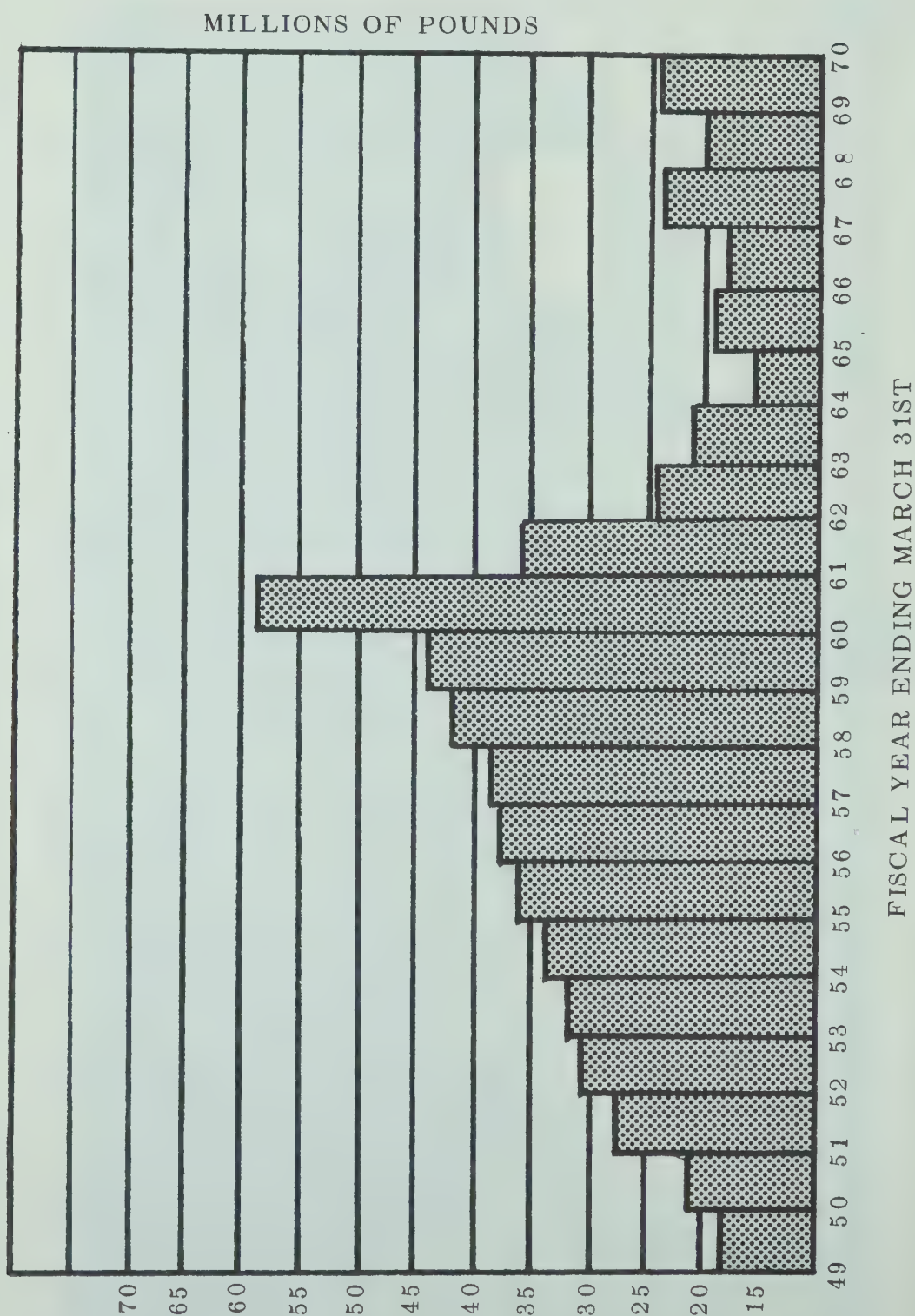
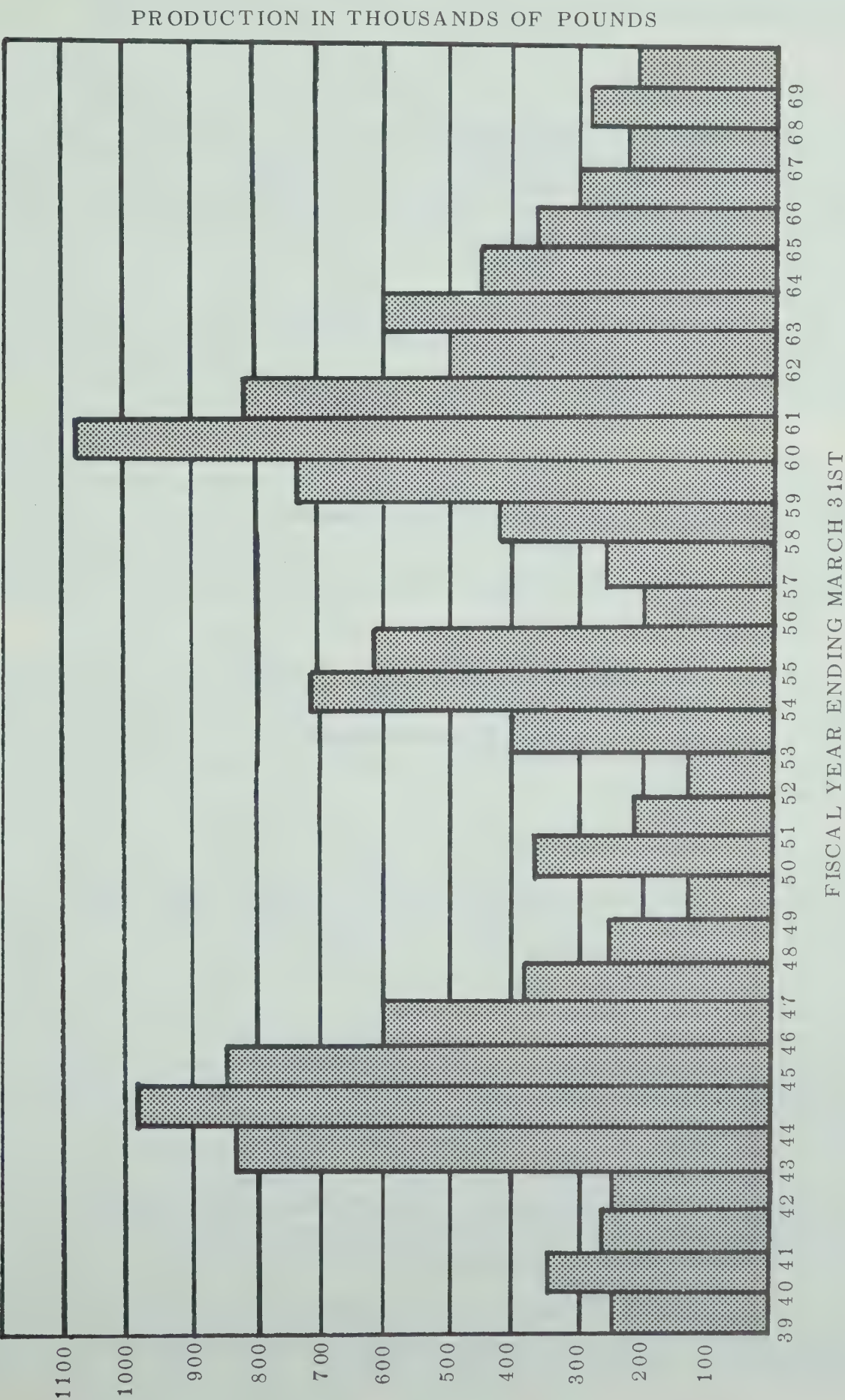
FIGURE 4 COMMERCIAL PRODUCTION OF LAKE
WHITEFISH IN ALBERTA 1949 - 70

FIGURE 5. COMMERCIAL PRODUCTION OF WALLEYE
IN ALBERTA 1939-70



WILDLIFE BRANCH

UPLAND GAME BIRDS

Native grouse populations varied considerably from one area of the province to the next. While ruffed grouse and sharptail grouse experienced high populations in the northern regions, those in the central parkland regions showed a drastic decline, and those in the southern prairie portions generally remained unchanged. Northern grouse populations can be expected to drastically decline in number probably in 1970 or 1971 while southern populations will continue to fluctuate according to annual weather patterns. Overall the most critical factor affecting long range populations is the ever-diminishing habitat necessary to support these animals.

The sage grouse season in 1969 received very little attention, probably because of the closure of the antelope season. Many hunters were not prepared to travel great distances for sage grouse hunting alone. The sage grouse harvest was very light which further confirmed that no permit season is required for the present.

Hungarian partridge throughout the province experienced a very good year with northern populations particularly showing considerable increases. The most marked increases in partridge occurred in the areas lying north of Red Deer.

The co-operative effort between various Fish and Game Associations and the Fish and Wildlife Division resulted in trapping in the Edmonton area in order to supply Hungarian partridge to the Peace River Block.

The most outstanding factor regarding upland game birds in 1969 was the closure of the pheasant and Hungarian partridge seasons as a result of high levels of mercury found in their tissues. Although this was a great disappointment to many hunters, as was evidenced by the decline of licence sales, it was the only action possible from a public health and safety standpoint.

It was known that spring-collected birds from 1968 and 1969 had above acceptable levels of mercury in their muscle tissue and it was further known that mid-summer birds, although carrying lesser levels of mercury, still had an average contamination level above that which was acceptable. From all information available it was not possible to predict the level of contamination which could be expected when the season was to open. There was then no alternative but to delay the season until fall contamination levels could be determined. As the fall progressed it became apparent that meaningful information would not be available until mid-winter and it was therefore decided to cancel the seasons entirely. Mid-winter data became available which indicated that the mercury levels had further declined to the point that only approximately ten per cent (10%) of the September-collected birds had more than the administratively actionable level of 0.1 ppm mercury in their muscle tissue.

Although the public health aspect of the problem now appears to be less serious than originally suspected, the wildlife conservation aspects of the problem have by no means been resolved. Further investigation will continue through 1970.

The experimental hen pheasant season in the Brooks-Scandia area was discontinued for 1969 in light of the season closure. It is hoped it can be completed if a season is declared in 1970.

Recent preliminary surveys of turkey populations indicate that no birds are present in the Porcupine Hills Regions while the Cypress Hills populations have declined to a low level. It is roughly estimated that somewhat less than fifty turkeys remain in that area.

WATERFOWL

Alberta experienced a very good year from a waterfowl hunting standpoint with large numbers of birds being available over the entire season. Water conditions were vastly improved in 1969 while the spring nesting and hatching weather left nothing to be desired. Overall the province experienced the best production year for a decade. Although poor arctic weather resulted in low production of some arctic nesting geese, there was a high goose hunter success, perhaps attributed to the unharvested grain fields and excellent water conditions in eastern Alberta. A survey carried out by the Fish and Wildlife Officers of the eastern half of Region III indicated a record success of 1.4 geese per hunter per day. The earlier opening date on white geese in this region apparently did not result in a disproportionate increase in the Ross' goose kill. This, however, should not be viewed lightly as the snow goose migration occurred much earlier than normal this year and thereby made the Ross' goose less vulnerable.

The establishment of the Alberta Waterfowl Technical Committee in Alberta in 1969 was made in an effort to reduce duplication, initiate joint programs and to review current waterfowl programs. The committee is comprised of one biologist each from the Canadian Wildlife Service, Ducks Unlimited and the Alberta Fish and Wildlife Division.

1969 was the largest waterfowl crop damage year experienced since the initiation of the Wildlife Damage Fund. In excess of \$900,000.00 in crop damage payments were made, following the 1968 high damage year which overdrew the fund by some \$600,000.00. New payment methods, plus some experimental projects in lure cropping will be attempted in 1970 in order to improve this program. These experimental projects will test suggestions made in the final report of a consultant's study contracted by the division in 1969 to investigate grain crop damage by waterfowl. The study points out several avenues of possible damage prevention as well as problems in compensation.

The Canada goose nesting study initiated in 1968 on Dowling Lake was continued in 1969. The change in the behavior of nesting Canada geese to the high nesting density of 10 nests per acre was studied in relation to territoriality and related to the success of the nests.

BIG GAME

The antelope season in 1969 was closed throughout the province as a result of the mid-summer survey which showed an overall decrease of 50 percent in our antelope populations. This decrease brought the provincial antelope populations to some 8,500 animals as compared to approximately 20,000 in 1963. Extreme winter conditions over the past few winters, as well as poor production years has caused this drastic decline. It was felt that a harvestable surplus of male antelope existed but it was not in the public interest to have a hunting season, in order to provide for maximum increase in the population. The winter of 1969/70 to this date appears favourable for high antelope survival and good production in the coming spring.

The mountain goat season was closed throughout the province in 1969 with the exception of a very small area in the Willmore Wilderness Park. The 1970 goat hunting

season will be closed throughout the province. Mountain goat populations have declined drastically in recent years to the point where there is thought to be something less than 1,000 animals throughout their entire range. The main factor contributing to this decline appears to be over-harvest wherever access by hunters is available.

A very detailed study on mountain goat began in 1969 and will become a full-fledged project in 1970. It is hoped that this study can learn something of the limiting factors to mountain goat populations over and above hunting pressure, and provide answers necessary to bring goat populations back to their original levels.

Northern Alberta moose populations (Zone 1) continue unchanged for the third year in a row in the face of declining browse conditions. Hunter success in Zone 1 was good in 1969 in spite of the poor access conditions brought about by extremely wet weather during the fall. Non-resident hunting licence sales declined to near 4,000 from their previous high of close to 10,000 two years ago. The majority of Zone 1 moose range is still carrying over 1.5 moose per square mile with many portions of the range being grossly under-harvested.

The moose population in the northern portion of Zone 5 has held its own, or perhaps experienced some minor increases, while the southern portion of this area has if anything slightly declined in number. Moose populations from Calgary south have held their own in most areas with some minor increases again in spite of poor range conditions. Hunter success in the southern half of the province generally was reduced from 1968 as a result of the lack of snow and poor hunting conditions.

Hunter success on elk and deer throughout the mountain regions declined in 1969 as a result of the scarcity of snow and abnormally wide distribution of the animals. In all mountain regions elk populations appear to be relatively unchanged while there were minor increases experienced in mule deer and whitetail numbers.

Elk populations in northwestern Alberta appear to be increasing their range along with a slow increase in total numbers. Mule deer in the northwest generally showed some increase over the past year.

In response to requests for an elk transplant in the area north of Utikuma Lake a study of that area was made during 1969. Aerial census data, aerial photographs, forest cover maps, land capability maps for ungulates, and climatological data were used along with an on-the-ground field survey in order to determine the suitability of the area to an elk introduction. All this data, upon final analysis, indicated that the elk would probably not do particularly well if introduced. It is the position of the Wildlife Branch that all suitable elk ranges in Alberta have substantial elk populations on them and that further transplanting of animals would not substantially change their rate of increase. Elk introductions are relatively low on the priority list of work required in the total wildlife scene and since most areas presently without elk appear unsuited for them, no further efforts will be made for the present to introduce them or study possible introduction sites.

The trophy mule deer season on the extreme southern prairies continues to be popular with some suggestion that it be applied to a broader geographical area. The reduction of mule deer doe seasons in the more northern prairie and parkland regions resulted in a considerable reduction in mule deer does harvested. Range conditions throughout the parklands and prairie appear somewhat improved over a few years ago.

A mule deer "Trophy Crest" program was initiated in 1969 in an attempt to gather more biological information on these animals. Successful mule deer hunters who submitted cleaned jaws to the Division were awarded a crest for their efforts. In excess of 500 jaws were submitted which assisted greatly in determining herd age structure information. The program will continue in 1970.

The bighorn sheep trophy harvest declined considerably in 1969 both as a result of the horn length required, which made fewer rams available, plus the forest fire closure in southern Alberta which effectively reduced the season in some cases to as short as three weeks. Nonetheless a reasonable harvest was taken.

The non-trophy sheep season continues to be popular although in some areas insufficient numbers of sheep are being removed to alleviate declining range conditions, while at the same time most animals are coming from the most accessible herds in each Wildlife Management Unit. Probably a more intensified management of bighorns will be necessary in coming years.

A late-winter elk season in the Corners (S416) and Ya-ha-tinda (S418) areas became necessary with an overpopulation of elk in the adjacent Banff National Park and the lack of opportunity to hunt these elk due to their ingress into the area after the fall hunting season. For six weeks, a three-day season per week with fifty hunters, was permitted from mid-January to the end of February. Out of 300 successful applicants, 249 hunters reported and obtained 73 elk for a 36 per cent success. Approximately 650 elk were observed in the area prior to the season.

1968-69 ESTIMATED PROVINCIAL BIG GAME HARVESTS

Species	Residents		Non-Residents		Total	
	1968	1969	1968	1969	1968	1969
Antelope	955	0	0	0	955	0
Bighorn sheep (trophy)	132	56	40	58	172	114
Bighorn sheep (non-trophy)	109	138	0	0	109	138
Mountain goats	40	22	45	32	85	54
*Grizzly bears (spring)	—	—	—	—	12	12
Grizzly bears (fall)	—	—	—	—	49	19
Black bears (spring)	—	—	—	—	332	274
Black bears (fall)	—	—	—	—	?	?

*Total grizzly bear harvest in 1968 was 61 animals while the 1969 total harvest was 31 animals.

PREDATORS

Predator management in 1969 was limited to some control programs for wolves in the Peace River Region. These were conducted in an attempt to remove wolves where damage to livestock had occurred. Programs were conducted in the High Level region, near the town of Manning, and in the vicinity of Grande Prairie and Valleyview. Wolf and livestock problems continue to increase in this area as wolves increase in number and agriculture increases its effort in the fringe areas of settlement.

No predator control for game management purposes was carried out as in no case was evidence found indicating that such was necessary.

SPECIAL PROJECTS

Canada Land Inventory — The Canada Land Inventory survey for ungulates has continued well in 1969 with a large portion of the province now having been completed for mapping purposes. This survey is designed to collect data on the ability of the land to produce big game animals, with this information to be used for future land use planning. In spite of several problems of staff turnover and poor initial planning, the program will probably reach completion near the proposed termination date in 1971.

CD-14 Project — a big game range improvement project in Census Division 14 (near Edson) has now been underway for two years. Such programs are aimed at determining range improvement techniques for sheep, elk, moose and to some degree mule deer. There is information available now to demonstrate profitable avenues of investigation and management of excessively used grasslands as well as to evaluate techniques for extensively arresting the growth of shrub and overstory strata on browse ranges that are vital to elk and moose. In conjunction with this project the branch also is initiating a long-term extensive study on predator/prey relationships as related to big game animals and wolves.

Goat Project — Although this project was initially started in 1969, it will become a fully operational project in 1970, centered in the Willmore Wilderness area. Attempts will be made to gather further information regarding mountain goat populations and factors limiting their production, etc. Ultimately this program will be expanded over more of the province in conjunction with attempts to rehabilitate populations which have been severely reduced in recent times.

Black Bear Project — The black bear project in the St. Paul Region was continued through 1969 with some 135 bears being captured, tagged and released. The study is designed not only to assess damage caused by bears in livestock and grain industries, but also to review food habits, movements, winter denecology and mortality factors.

Beaver Management Project — The beaver management project was continued in 1969. This project was designed to determine and quantify various trapping procedures whereby harvest of beaver populations can be maximized. Also, in conjunction with this project is an assessment of pelt primeness, age distribution, sex ratios and productivity of parkland beaver.

Wainwright Deer — The wildlife research section continued field operations at Wainwright in 1969. A considerable bank of information has been gathered on white-tail deer, resulting in the major emphasis of the study being placed on mule deer research over the past year. Much valuable information on food habits and reproductive rates has been gathered. The program will continue to a partial completion in 1970.

The Pheasant Over-wintering Project — An experimental project to artificially over-winter wild pheasants and then release these birds to the wild the following spring was conducted over the 1969/70 winter. Wild hens over-wintered at Brooks and released to the wild in the spring of 1969 were found to have made a substantial contribution to the 1969 fall population. This program however, is as yet incomplete, and will be continued during the coming year. Results so far indicate considerable promise in this area.

Oldman River Elk Herd — The Oldman River elk herd project continued in the past year but will be very much intensified in 1970. To this point the project has revolved around assessment of winter range condition and the possible problems of livestock/elk

competition. 1970 should see some progress in determining movement, migrations, reproductive rates and food habits of the Oldman River herd.

Parkland Deer Study – A deer study was initiated in the Pine Lake area to determine both the population structure of mule and white-tailed deer in a heavily hunted area and also the effects of season manipulation on the deer harvest.

Many other project investigations were conducted over the last year in an attempt to identify the major problems facing wildlife in the various regions, and to create a priority list of activities for the immediate future. Obviously all problems cannot be worked on at all times, and it has therefore become necessary to organize field activities in order that the most critical problems be handled first. Consequently many low priority projects will have to be discontinued until such time as the major ones are resolved. The major problems in wildlife at this time are hunter-landowner conflicts, habitat protection and improved hunting quality in the face of increasing public demand for hunting opportunities.

Wildlife Table 1

	GAME			
	COMPARISON OF THE NUMBER OF GAME LICENCES ISSUED			
	1966	1967	1968	1969
Resident Bird Game Stamps	64,219	68,703	69,833	62,969
Non-Res. (Alien) Bird Game Stamps	854	1,399	1,343	1,272
Non-Res. (Canadian) Big Game Stamps	86	54	59	47
Non-Res. (Alien) Big Game Stamps	631	429	644	647

Wildlife Table 2

GAME LICENCES AND STAMPS 1969-1970 SEASON			
	LICENCES, ETC.	FEE	TOTAL AMOUNT
Wildlife Certificates	117,408	\$ 2.00	\$234,816.00
Resident Bird Game Stamps	62,969	2.50	157,422.50
Non-Res. (Canadian) Bird Game Stamps	2,848	5.00	14,240.00
Non-Res. (Alien) Bird Game Stamps	1,272	25.00	31,800.00
Resident Moose Stamps	44,748	5.00	223,740.00
Resident Elk Stamps	27,449	5.00	137,245.00
Resident Moose Stamps (Zone One)	4,868	5.00	24,340.00
Non-Res. (Canadian) Big Game Stamps	47	75.00	3,525.00
Non-Res. (Alien) Big Game Stamps	647	150.00	97,050.00
Resident Sheep Stamps	1,061	7.50	7,957.50
Resident Goat Stamps	59	7.50	442.50
Non-Trophy Sheep Stamps	371	5.00	1,855.00
Wainwright Deer Stamps	390	5.00	1,950.00
Resident Whitetail Deer Stamps	43,254	3.00	129,762.00
Non-Res. Whitetail Deer Stamps	309	15.00	4,635.00
Resident Mule Deer Stamps	41,348	3.00	124,044.00
Resident Caribou Stamps	655	7.50	49,125.00
Resident Grizzly Bear Stamps	204	7.50	1,530.00
Ya-Ha Tinda Elk Stamps	420	5.00	2,100.00
Non-Res. & Non-Res. (Alien) Special Big Game Stamps	3,321	50.00	166,050.00
Resident Spring Bear Licences	1,273	5.00	6,365.00
Non-Res. Spring Bear Licences	54	25.00	1,350.00
Permit to Collect	91	Free	
Taxidermist's Licences	57	5.00	285.00
Guide's Licences (Class "A")	796	2.50	1,990.00
Guide's Licences (Class "B")	1,001	2.50	2,502.50
Game Bird Farm Licences (Class "A")	9	25.00	225.00
Game Bird Farm Licences (Class "B")	11	10.00	110.00
Game Bird Farm Licences (Class "C")	18	5.00	90.00
Game Farm Licences (Big Game)	15	100.00	1,500.00
Resident Trapper's Licences	3,593	3.00	10,779.00
Dog Trainer's Licences	24	Various	292.00

Wildlife Table 3

ALBERTA FUR PRODUCTION SEASON 1969-1970
(WILD FUR)

	TOTAL NUMBER OF PELTS	AVERAGE VALUE OF PELTS	TOTAL VALUE OF PELTS
BADGER	2,298	\$ 4.76	\$ 10,938.48
BEAR	628	20.97	13,169.16
BEAVER	59,067	13.29	785,000.43
COYOTE	16,654	9.85	164,041.90
ERMINE	22,251	.65	14,463.15
FISHER	541	13.66	7,390.06
FOX, BLUE	1	6.50	6.50
FOX, CROSS	167	13.67	2,282.89
FOX, RED	614	7.57	4,647.98
FOX, SILVER	22	8.25	181.50
FOX, WHITE	24	18.48	443.52
LYNX	8,666	24.54	212,663.64
MARTEN	1,641	11.55	18,953.55
MINK	6,973	11.11	77,470.03
MUSKRAT	174,567	1.09	190,278.03
OTTER	265	20.42	5,411.30
RABBITS, JACK	14,402	.16	2,304.32
SKUNK	13	.36	4.68
SQUIRREL	167,017	.32	53,445.44
WOLF, TIMBER	444	15.79	7,010.76
WOLVERINE	64	27.25	1,744.00
	476,319		\$1,571,851.32

Wildlife Table 4

SALE OF FURS

Amount realized from the sale of furs during the period	
1969-1970 season	\$ 836.48

TRAPLINE REGISTRATIONS

Number of Registered Traplines and Revenue 1969-1970	
season	2,476 . . \$24,760.00

FUR DEALERS' LICENCES, ETC.

KIND	NUMBER	AMOUNT
Resident Fur Dealers' Licences to carry on business in a city and elsewhere than in a city	123	\$ 1,230.00
Non-Resident Fur Dealers' Licences to carry on business in the Province	1	100.00
Resident Travelling Fur Purchasing Agents' Licences	12	1,200.00
Furriers' Licences	7	70.00
Tanners' Licences	3	30.00

FUR TAX REVENUE

Amount Collected	\$86,008.03
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Wildlife Table 5

	1966-67	1967-68	1968-69	1969-70
Revenue Total	1,091,134.43	1,416,069.37	1,707,574.31	1,680,343.37
Expenditure Total	1,307,432.49	1,541,022.76	1,642,778.52	1,885,496.97

Wildlife Table 6

WILDLIFE DAMAGE FUND

	1968-69	1969-70
Opening Balance	92,108.28	119,356.83
Revenue Total	459,661.48	283,084.26
Loan		600,000.00
Funds Available	551,769.76	1,002,441.09
Expenditure	432,412.93	1,713,169.27
Balance of Fund	119,356.83	289,271.82

Wildlife Table 7

	1966-67	1967-68	1968-69	1969-70
Claims	477	99	821	1,485
Acreage Damage	17,358½	3,390	39,408	65,627
Settlements and Costs	\$169,939.93	\$43,143.22	\$410,444.41	\$672,510.78

Wildlife Table 8

Loss or injury to Livestock
Caused by Hunters

	1966-67	1967-68	1968-69	1969-70
Claims			42	68
Veterinary Claims			4	18
Awards	\$ 6,689.68	\$10,217.81	\$ 7,968.52	\$12,931.34

Renewable Resources
Consulting Services

			\$14,000.00	
Waterfowl Damage				
Contracts & Other Charges				\$27,727.15

MISCELLANEOUS REVENUE

Year	Fisheries Miscellaneous	Fisheries Royalty	Fur Tax	Game Branch Miscellaneous	Total
	\$	\$	\$	\$	\$
1952/53	138.74	17,544.40	87,366.64	1,725.57	106,775.35
53/54	128.72	23,860.61	90,982.58	1,160.29	116,132.20
54/55	415.31	27,181.00	92,150.68	562.86	120,309.85
55/56	782.59	23,341.48	124,907.31	2,157.23	151,188.61
56/57	423.30	25,462.86	81,796.11	1,032.10	108,714.37
57/58	1,034.21	22,898.15	84,973.05	1,185.63	110,091.04
58/59	1,719.03	24,757.58	72,412.38	2,446.21	101,335.20
59/60	2,087.16	34,286.42	78,307.77	2,166.97	116,848.32
60/61	4,337.94	46,890.16	78,437.40	2,354.75	132,020.25
61/62	809.59	28,836.75	84,449.87	3,467.91	117,564.12
62/63	4,125.74	15,496.11	90,822.07	5,350.45	115,794.37
63/64	3,338.97	14,794.42	87,731.71	4,976.82	110,841.92
64/65	259.77	9,054.69	104,299.36	4,762.19	118,376.01
65/66	888.10	14,165.32	85,208.64	3,130.46	103,392.52
66/67	409.92	15,232.36	72,730.28	3,658.12	92,030.68
67/68	224.78	14,439.74	78,798.35	6,318.50	99,781.37
68/69	1,700.68	13,698.29	90,264.30	3,912.73	109,576.00
69/70	810.97	12,533.15	76,872.32	2,596.66	92,813.10

FISH LICENCES

GAME LICENCES

	Number Sold	Revenue	Number Sold	Revenue	Miscellaneous Revenue	Total Revenue	Total Expenditure
1956/57	110,883	\$129,098.70	105,084	\$ 402,108.95	\$108,714.37*	\$ 639,922.02	\$ 450,068.75
57/58	118,323	147,434.70	120,968	457,969.92	110,091.04	715,495.66	522,483.82
58/59	129,167	156,487.20	148,057	523,435.05	101,335.20	781,257.45	568,302.88
59/60	135,243	162,681.70	140,914	516,806.78	116,848.32	796,336.80	687,531.01
60/61	146,645	167,932.05	172,631	631,920.81	132,020.25	931,873.11	806,236.43
61/62	125,280	247,821.45	155,174	585,801.15	117,564.12	951,186.72	808,278.26**
62/63	126,764	247,096.90	166,036	648,603.60	115,794.37	1,011,494.87	879,594.41**
63/64	134,462	262,348.60	173,866	658,141.09	110,841.92	1,031,331.61	912,420.21**
64/65	129,073	248,709.65	295,488	674,002.14	118,376.01	1,041,087.80	1,016,510.31**
65/66	127,194	246,739.95	290,899	685,188.68	103,392.52	1,035,321.15	1,117,719.07**
66/67	137,687	265,139.50	289,219	733,964.25	92,030.68	1,091,134.43	1,330,052.83**
67/68	141,676	273,456.60	337,516	1,042,831.40	99,781.37	1,416,069.37	1,556,926.07**
68/69	143,062	433,982.90	352,454	1,164,015.41	109,576.00	1,707,574.31	1,646,200.51**
69/70	155,372	464,622.30	353,648	1,122,907.97	92,813.10	1,680,343.37	1,899,176.34**

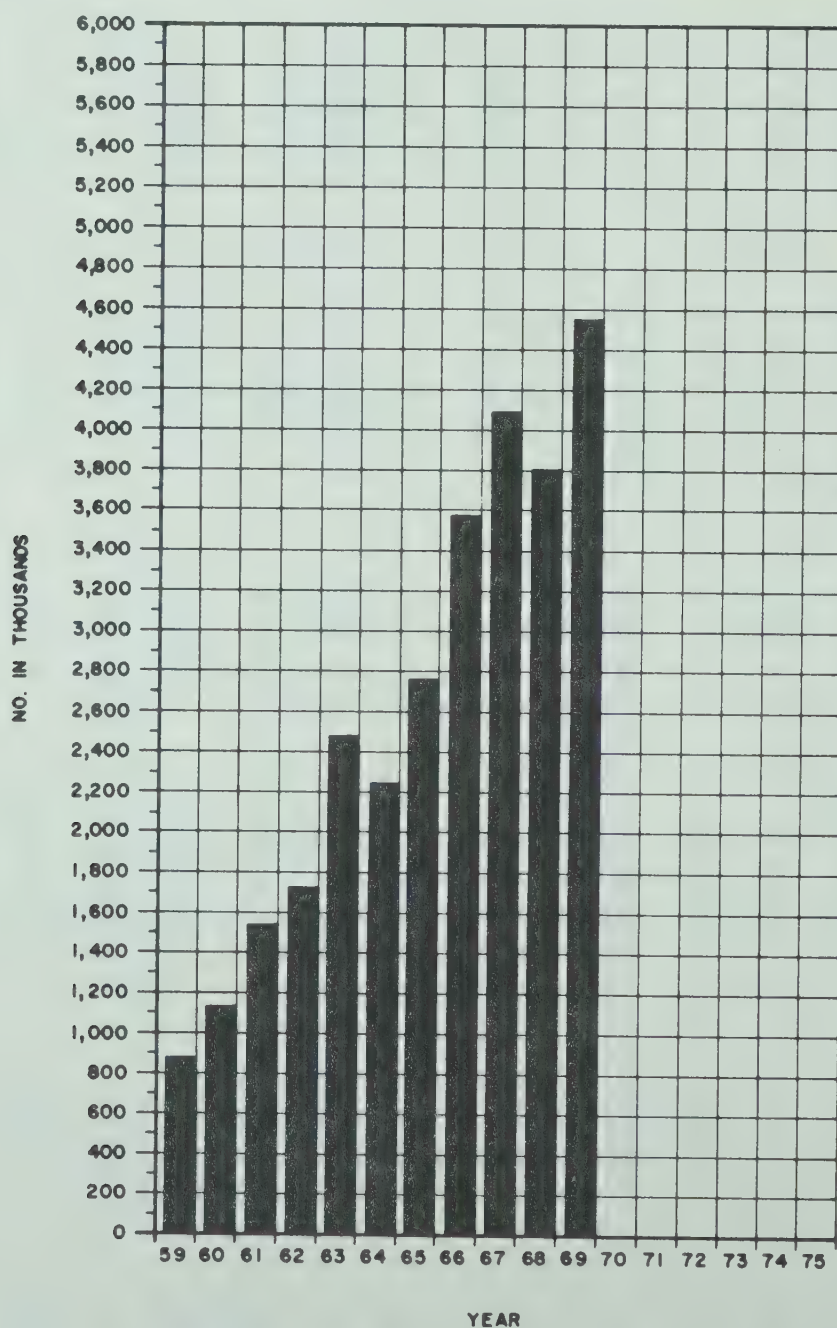
* See Miscellaneous Revenue Page 100 ** 1961/62 - 1969/70 includes Cost Sharing Programs and Predator Control

PROVINCIAL PARKS DIVISION

REPORT OF THE DIRECTOR

E.P. SHAVER

The generally improved weather conditions over the previous years resulted in a new record attendance of 4,556,930 day use visitors to Alberta parks in 1969/70. Attendance was up 11.6% over the previous record year of 1967/68, and up 19% over last year. Each year shows an increasing trend by overnight campers to the use of trailers over tenting. The statistics obtained from those twenty-nine parks where overnight charges are made shows only a .06% increase in tenters, but a 39% increase in trailers and truck campers this year over the previous year.



TOTAL ATTENDANCE FOR ALL PROVINCIAL PARKS

Two new recreational parks were established this year on

Chain Lakes 640 acres — East of Nanton

Gregoire Lake 1,694 acres — South of Ft. McMurray

One additional historical site was also established bringing the total to twenty-five. The new site is Grizzly Bear Telegraph Station (80 acres) located South of Vermillion.

Substantial additions were made to the following presently established parks for the purpose of improving accommodation and facilities for patrons.

Beauvais Lake — 301.96 acres

Garner Lake — 35.53 acres

Miquelon — 160.19 acres

To provide more efficient service and facilities for park patrons in accordance with park policy and planning, the following projects were constructed during the year by the Parks Workshop and Mobile Crews.

OFFICES

Aspen Beach	1 Renovated Combination Residence
Entrance	1 Office Renovations
Little Bow	1 New Office
Sir Winston Churchill	1 New Office
Williamson Lake	1 New Office

WORKSHOPS

Williamson	1 New
O'Brien	1 New
Chain Lakes	1 New
Wabamun	1 New (with staff facilities)

CHECKING STATIONS

Miquelon	2 New
Wabamun	1 New

PICNIC SHELTERS

Sir Winston Churchill	1 New Closed Type
	1 New Open Type
	1 Open Type

CHANGE HOUSES

Sir Winston Churchill	1 New
Miquelon	5 New

COMFORT STATIONS

Miquelon	1 New
----------	-------

CREW QUARTERS

Aspen Beach	1 Completed
Wabamun Lake	1 Completed
Miquelon Lake	1 Completed
Bow Valley	1 Completed

CONCESSION BOOTHS

Williamson Lake	1 New
-----------------	-------

GARAGES

Pembina River	1 New
---------------	-------

PUMP HOUSES

Long Lake	1 New
O'Brien	1 New
Park Lake	1 New
Willow Creek	2 New

WORKSHOP CONSTRUCTION

- 1,000 Large Picnic Tables
- 110 Benches
- 112 Single Sanitary Units
- 2 Radio Shacks for Long Lake and Wabamun Lake Parks
- 1 Patron Checking Station for Jarvis Bay Park

Major Capital Works programs were undertaken on behalf of Provincial Parks by the Department of Public Works, or completed by Provincial Parks with Department of Public Works funds. The parks affected were Chain Lakes, Tillebrook, Miquelon Lake, Jarvis Bay, and Pigeon Lake.

The Parks Planning Section, which is responsible for the various concepts, designs, and planning of parks and park facilities undertook the following projects during the year:

- Completion of final design plans and initial construction supervision at Chain Lakes Park.

- Concept and design for Police Outpost Lake Park.

- Concept and design for Gregoire Lake Park.

Designs and preparation of plans and specifications were completed for water systems in the following parks:

O'Brien	Writing-On-Stone
Williamson	Sir Winston Churchill
Long Lake	Bragg Creek
Pembina River	Beauvais Lake

Designs and preparation of plans and specifications were completed for sewage systems in the following parks:

Winagami Lake	— complete sewerage system
Pembina River	— dumping station
Wabamun Lake	— dumping station

Water wells were drilled at the following locations:

Chain Lakes Park — 5
Pigeon Lake Park — 2

During 1969/70, both the recreational land capability inventory and the recreational facility inventory of the Canadian Land Inventory Project progressed satisfactorily under the direction of the Parks Planning Branch. Field work for the recreation capability inventory was fully completed except for one block, and the recreation facility inventory field work was completed north of Edmonton and in half of the southern portion of the province.

ALBERTA PARKS FACILITIES CHART

1970

CAMPING

FOR PLEASURE AND ENJOYMENT

PRIMARY VALUES

SCENIC

HISTORICAL

RECREATION

WARDEN

PICNICKING

CONFECTIONERY

SWIMMING

BOATING

BOAT RENTAL

FISHING

TENTING

TRAILER PARKING

ELECT. OUTLETS

NAME OF PARK	AREA IN ACRES															NEAREST CITY OR TOWN
Aspen Beach	232.14			x	x	x		x	x	x	x	x	x			Lacombe
Beauvais Lake	1098.15	x		x	x	x		x	x	x	x	x	x			Pincher Creek
Big Hill Springs	62.94	x		x	x	x						x	x			Cochrane
Big Knife	731.50			x	x	x	x		x			x	x	x		Forestburg
Bow Valley	2309.36	x		x	x	x						x	x	x		Seebe
Bragg Creek	302.47			x	x	x										Calgary
Chain Lakes	640.76			x	x							x	x	x		Nanton
Crimson Lake	7872.91			x	x	x	x	x	x			x	x	x		Rocky Mtn. House
Cross Lake	4126.05			x	x	x	x	x	x	x	x	x	x	x		Fawcett
Cypress Hills	49460.00	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Medicine Hat
Dillberry Lake	219.83			x	x	x	x	x	x			x	x	x		Provost
Dinosaur	22072.40	x	x		x	x						x	x	x		Patricia
Entrance	6617.50	x		x	x	x		x	x			x	x	x		Hinton
Garner Lake	182.08			x	x	x	x	x	x	x	x	x	x	x		Spedden
Gooseberry Lake	128.00			x	x	x	x	x	x			x	x	x	x	Consort
Gregoire Lake	1694.60						Under Development									Ft. McMurray
Hommy	16.43						Undeveloped									Beaverlodge
Jarvis Bay	215.89						Under Development									Sylvan Lake
Kinbrook Island	95.00			x	x	x	x	x	x			x	x	x		Brooks
Lac Cardinal	299.60			x	x	x		x	x			x	x	x		Berwyn
Lesser Slave Lake	17852.26	x		x	x			x	x			x	x	x		Slave Lake
Little Bow	272.16			x	x	x	x	x	x	x	x	x	x	x		Champion
Little Fish Lake	151.21			x	x	x		x	x			x	x			Drumheller
Long Lake	1726.47			x	x	x	x	x	x	x	x	x	x	x		Newbrook
Ma-Me-O Beach	4.00			x	x	x		x	x			x				Wetaskiwin
Miquelon Lake	1043.98			x	x	x	x	x	x			x	x			Camrose
Moonshine Lake	1933.98			x	x	x	x	x	x			x	x			Spirit River
Moose Lake	1719.00						Under Development									Bonnyville
O'Brien	165.72			x	x	x						x	x			Grande Prairie
Park Lake	188.27			x	x	x	x	x	x			x	x	x		Lethbridge
Pembina River	408.76			x	x	x						x	x	x		Entwistle
Pigeon Lake	313.00						Under Development								x	Wetaskiwin
Red Lodge	158.97			x	x	x	x					x	x			Bowden
Rochon Sands	158.00			x	x	x		x	x	x	x	x	x			Erskine
Saskatoon Island	251.34			x	x	x		x	x			x	x	x		Grande Prairie
Sir Winston Churchill	591.40	x		x	x	x		x	x			x	x	x		Lac La Biche
Taber	127.01			x	x	x	x					x	x			Taber
The Vermilion	1929.33			x	x	x		x	x			x	x	x	x	Vermilion
Thunder Lake	513.67			x	x	x	x	x	x			x	x	x		Barrhead
Tillebrook	180.96			x								x	x	x	x	Brooks
Wabamun Lake	692.38			x	x	x	x	x	x			x	x	x	x	Wabamun
Williamson	44.62			x	x	x	x	x	x			x	x	x		Valleyview
Willow Creek	75.60			x	x	x						x	x			Stavely
Winagami Lake	2992.39			x	x	x	x	x	x			x	x	x		McLennan
Woolford	86.51			x	x	x						x	x			Woolford
Writing-on-Stone	1058.80	x	x	x	x	x						x	x			Milk River

X - FACILITIES PROVIDED

ALBERTA HISTORICAL SITES

1970

NAME OF SITE	AREA IN ACRES	NEAREST CITY OR TOWN
1. Athabasca Landing	3.02	Athabasca
2. Buckingham House	5.79	Elk Point
3. Bugnet Plantation	13.00	Gunn
4. Coronation Bdy. Marker	0.25	Coronation
5. Early Man Site	1.00	Ft. MacLeod
6. Fort De L'Isle	107.20	Myrnam
7. Fort George	1.00	Elk Point
8. Fort Vermilion	2.00	Marwayne
9. Fort Victoria	0.80	Smoky Lake
10. Fort White Earth	5.48	Smoky Lake
11. Frog Lake Massacre	3.84	Elk Point
12. Grizzly Bear Telegraph Station	8.76	Vermilion
13. Hay Lakes Telegraph Station	0.89	Hay Lakes
14. Head-Smashed-In Buffalo Jump	5.23	Ft. MacLeod
15. Indian Stone Pile	3.75	Trochu
16. Massacre Butte	1.00	Lundbreck
17. McLeod Fort	0.66	Peace River
18. Old Women's Buffalo Jump	8.16	Cayley
19. Rev. George McDougall	0.46	Calgary
20. Ribstones	2.00	Viking
21. Rocky Mountain House Fort	2.75	Rocky Mtn. House
22. Shaw Woollen Mill	0.25	Calgary
23. Standoff	0.89	Standoff
24. Stephansson	2.00	Markerville
25. St. Joseph's Industrial School	0.36	Okotoks
26. Twelve Foot Davis	2.10	Peace River

STATEMENT OF REVENUE AND EXPENDITURE * PROVINCIAL PARKS

YEAR ENDING MARCH 31, 1970

Park	Revenue	Expenditure	
		Income	Capital
General Administration	\$ —	\$ 243,718.44	\$ —
Mobile Equipment	—	265,067.43	—
Salaries	—	568,536.15	—
General Equipment	—	6,811.68	—
Workshop	—	151,865.99	—
Warehouse	—	132,625.33	—
Electric Supplies	—	19,019.85	—
Plumbing Supplies	—	22,899.81	—
Municipal Aid	—	Nil	—
Historic Sites	—	1,375.04	—
Contingency Fund	—	30,650.93	—
Communications	—	1,261.53	—
Natural Areas	—	Nil	—
Miscellaneous Equipment	—	24,770.39	—
Equipment Repair	—	67,940.51	—
Aspen Beach	19,533.64	38,858.49	50,196.56
Beauvais	1,848.33	22,877.28	—
Big Hill Springs	—	8,921.58	—
Big Knife	22.24	12,921.01	—
Bow Valley	6,322.08	25,955.02	—
Bow Valley Trans-Canada	—	15,474.23	—
Bragg Creek	—	11,230.65	—
Chain Lakes	—	16,241.36	33,335.96
Crimson Lake	8,852.08	35,769.79	—
Cross Lake	62.97	11,802.62	—
Cypress Hills	41,274.89	137,255.39	3,125.00
Dillberry	3,642.25	10,246.46	—
Dinosaur	2,358.50	24,957.50	—
Entrance	11.00	12,037.98	—
Garner Lake	3,422.56	17,409.05	—
Gooseberry Lake	326.75	12,837.52	—
Gregoire Lake	—	10,831.14	—
Hasse Lake	—	73.91	—
Jarvais Bay	—	3,089.85	12,929.57
Kinbrook	3,992.15	25,511.20	—
Lac Cardinal	105.00	9,332.88	—
Little Bow	3,930.30	32,918.53	—
Little Fish Lake	16.00	3,914.90	—
Long Lake	7,429.31	33,541.12	—
Lesser Slave Lake	939.70	10,192.33	—
Ma-Me-O Beach	—	3,662.26	—
Miquelon Lake	12,168.21	46,582.12	23,612.50
Moonshine Lake	958.00	15,740.48	—
O'Brien	—	7,923.76	—
Parks Lake	2,415.20	18,207.73	7,052.16
Pembina River	2,808.82	12,532.12	—
Pigeon Lake	—	2,669.62	3,155.84
Red Lodge	3,441.00	10,378.77	—
Rochon Sands	4,139.00	11,200.16	—
Saskatoon Island	1,413.00	10,016.51	—
Taber	—	14,706.45	—
The Vermilion	2,649.93	16,471.38	—
Thunder Lake	3,230.70	17,565.48	—
Tillebrook	—	8,051.93	—
Wabamun	9,090.61	54,486.35	—
Williamson	4,945.08	10,943.83	—

Park	Revenue	Expenditure	
		Income	Capital
Willow Creek	\$ 4.02	\$ 11,994.81	\$ —
Winagami Lake	2,112.00	18,163.76	—
Sir Winston Churchill	268.50	21,879.54	—
Woolford	48.55	9,387.38	—
Writing on Stone	348.50	11,065.66	4,026.81
C.L.I. 48016 Rec. Land Capability	—	86,082.94	—
ARDA 38001 Morley Indian Reserve	—	9,777.63	—
	\$154,130.87	\$2,510,235.19	\$137,434.40
LESS ARDA		95,860.57	
	\$154,130.87	\$2,414,374.62	\$137,434.40

TECHNICAL DIVISION

REPORT OF THE DIRECTOR
T. DRINKWATER

The number of notifications issued and the acreage patented showed a small decrease from the 1968-69 fiscal year.

NOTIFICATIONS ISSUED DURING FISCAL YEAR

April 1st, 1969 to March 31, 1970

(surface rights only)

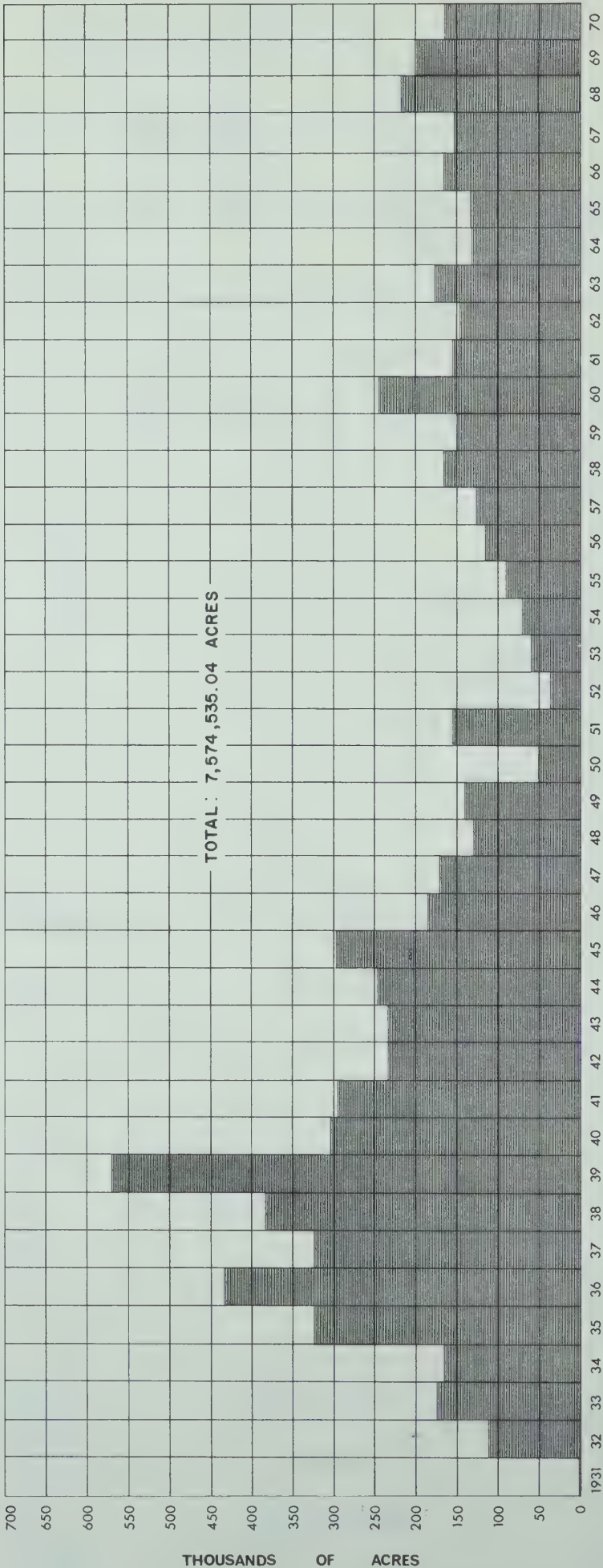
Classification	Notifications	Area
Homesteads	184	46,378.72
Sales	460	54,453.109
Notification to Minister of lands and Forests	29	146,333.20
Exchange of Land	13	3,872.45
Release of Habendum Clause	5	3.00
Transfer of Administration & Control	8	148.48
Special Grants and Free Grants	3	389.51
Homestead Sales	211	54,289.88
Homestead Lease Loan Sale	18	4,617.23
TOTAL	931	310,485.579

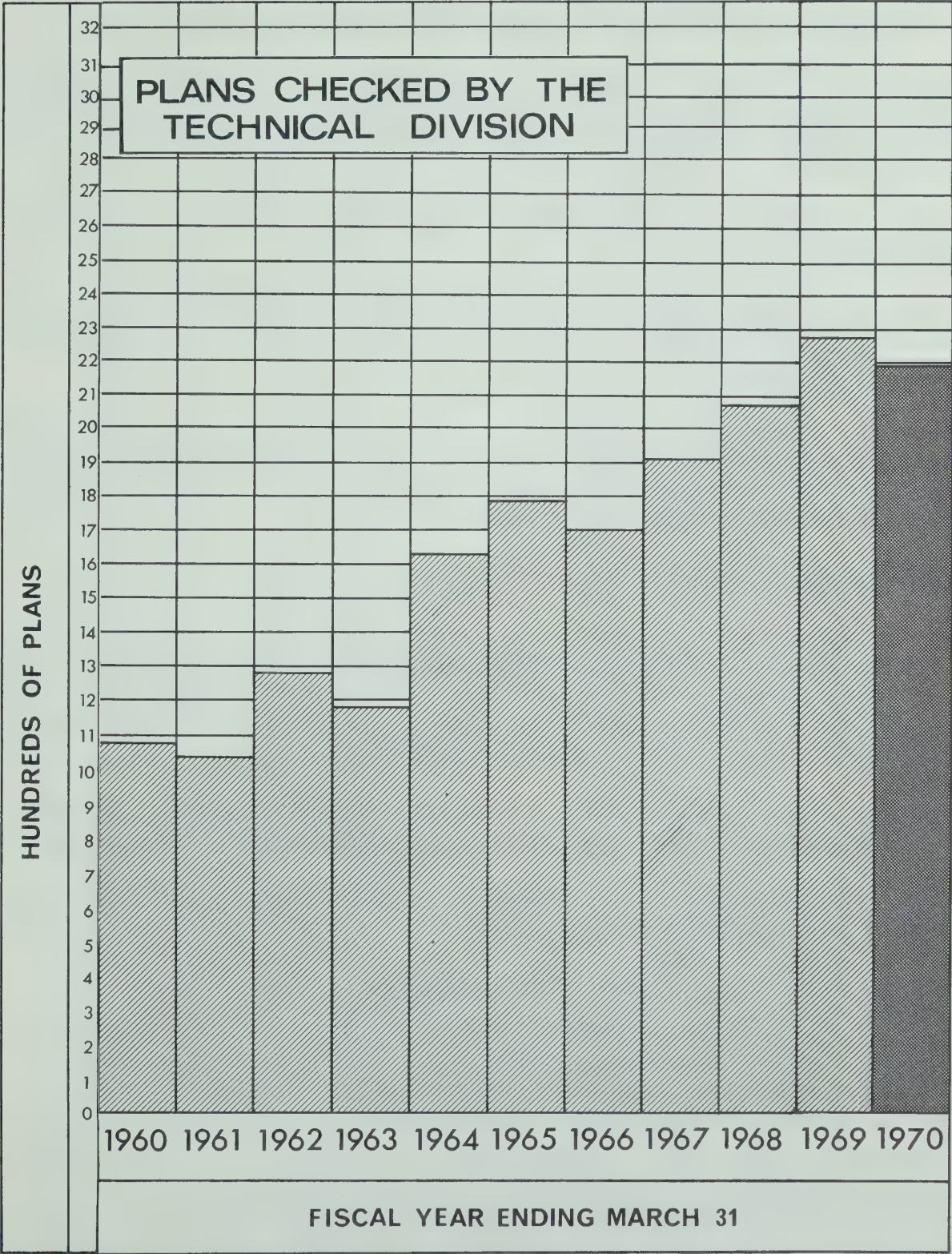
The number of plans checked and filed in the division decreased slightly from the previous fiscal year and a summary of the various plans filed in the division are as follows:

Access roads	—	390
Powerlines	—	174
Wellsites	—	933
Pipelines	—	384
General	—	75
Railways	—	5
Irrigation	—	11
Roads (reg'd)	—	144
Subdivisions	—	60
Sand & Gravel	—	14
		2,190

ACREAGE PATENTED

YEAR by YEAR SINCE TRANSFER OF
NATURAL RESOURCES TO THE PROVINCE





TITLES ACQUIRED IN THE NAME OF THE CROWN

The division acquired title in the name of the Crown to the following:

32 quarter sections or portions thereof were acquired through exchanges of land.

300 quarter sections or portions thereof were acquired through purchases by the Department of Agriculture under the ARDA Program for inclusion in grazing reserves and community pastures, for agricultural redevelopment, for watershed, wildlife and forestry conservation and for recreational purposes.

2 quarter sections were acquired through purchases and 4 by donation for Provincial Park purposes.

2 former school sites were acquired through transfer from school districts and counties and 13 quarter sections were acquired from the Department of Agriculture for administrative purposes.

In addition to the above, title to 439 quarter sections were received here for lands which were brought under the Land Titles Act by this office to facilitate registration of mortgages against easements, pipe line agreements, board orders, etc. by industrial companies and also to facilitate the registration of subdivision plans.

MISCELLANEOUS SURVEYS

Two main subdivision surveys were carried out during the year. One survey involving 28 lots was made in the Ft. Chipewyan Settlement to provide lots which were taken over by the Alberta Housing Corporation. Another survey for recreational cottage sites was made at Marten Beach on the east shore of Lesser Slave lake in Township 75, range 6, west 5th meridian. Fifty-five lots were provided in this subdivision.

Legal surveys were also carried out in the east half of section 19, township 67, range 14, west 4th meridian and in township 69, range 12, west 4th meridian, for sale purposes.

Horizontal and vertical control was obtained for stereo plotting purposes for the Provincial Parks Division in the following areas:

Sir Winston Churchill Park

Moose Lake Park

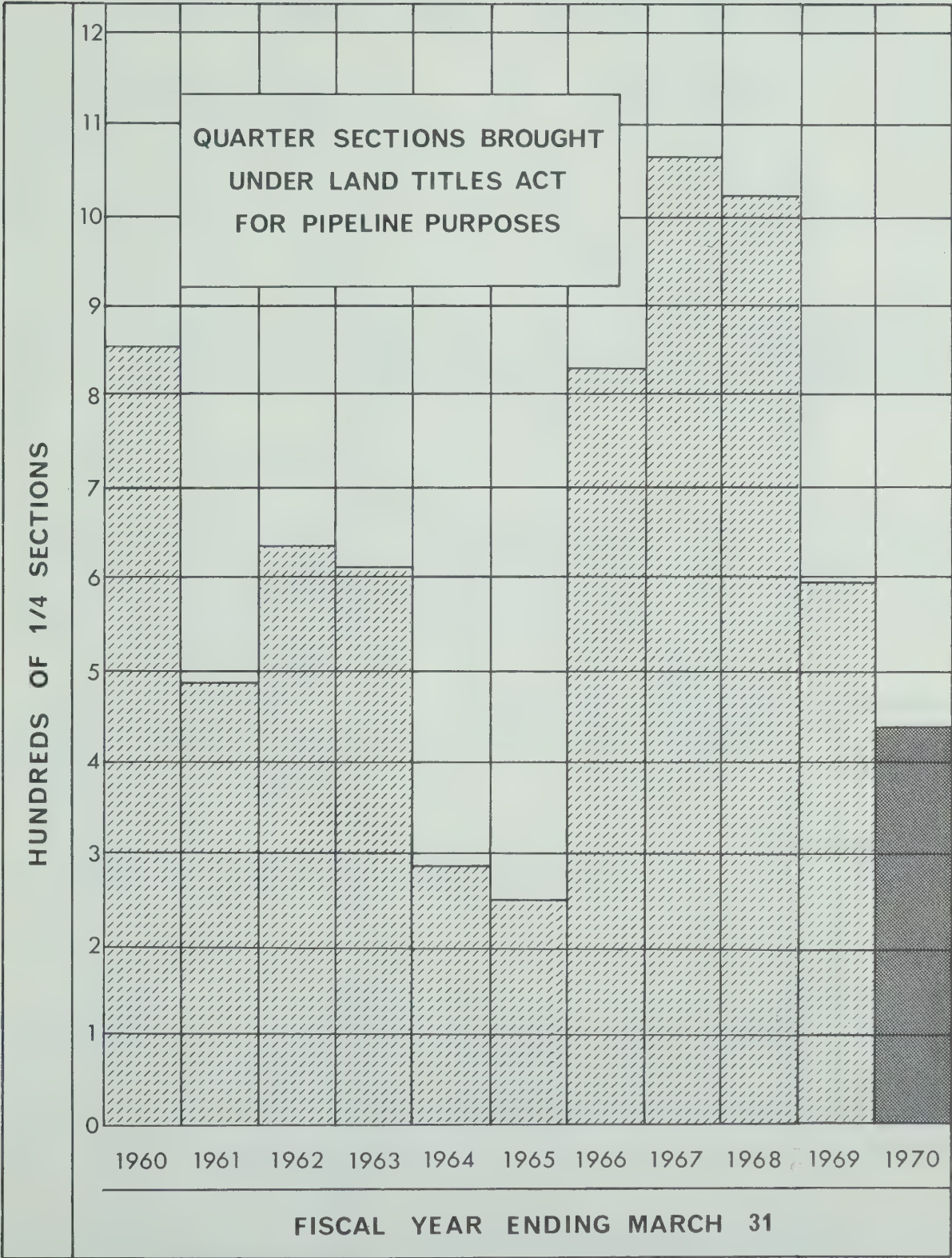
Garner Lake Park

Dilberry Lake Park

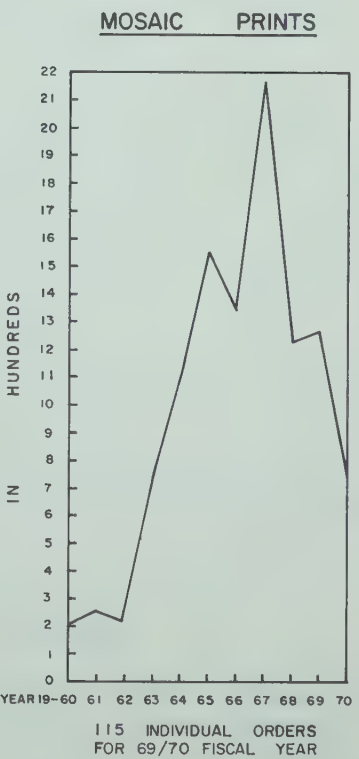
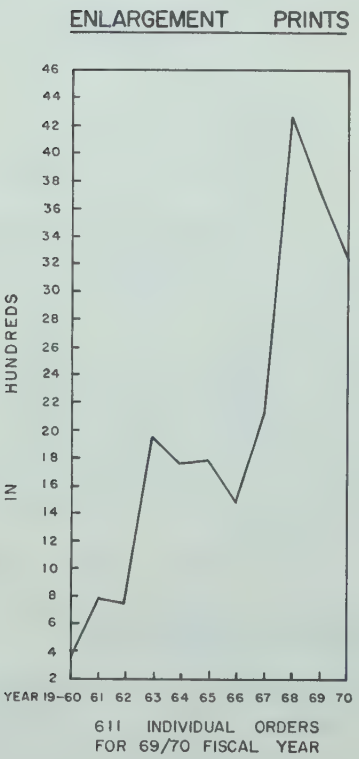
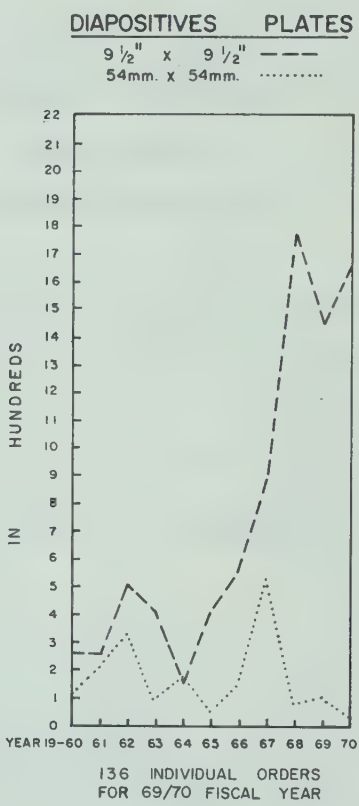
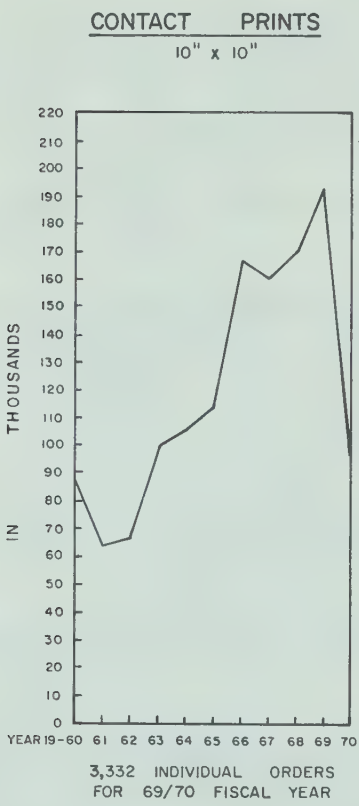
Pigeon Lake Park

Three other small surveys were carried out for acquisition purposes —

One area was located in Valleyview where enlargement of the forestry site was being undertaken and additional area for the Tillebrook Trans-Canada camp site was also surveyed in section 24, township 18, range 14, west 4th meridian and property boundary lines were rerun at Jarvis Bay Provincial Park on Sylvan Lake.



PRINTS AND PLATES SUPPLIED FROM THE TECHNICAL
DIVISION FOR THE FISCAL YEARS ENDING MARCH 31



AERIAL PHOTOGRAPHY

	1968-69	1969-70
Contact prints printed in lab	193,478	97,638
Rectified prints	1,675	139
Enlargements	3,705	3,233
Kelsh diapositives	1,518	1,759
Multiplex diapositives	111	31
K 20 films processed	16	3
Other films processed	24	60

NEW PHOTOGRAPHY

There was a total of approximately 27,000 square miles block photography flown under contract for the department to fulfil requests of the department and the Department of Municipal Affairs. Negatives of the photography are annotated and stored with the department.

PHOTOGRAPHY DEPARTMENTAL

80 aerial photography projects were completed during the year with departmental aircraft involving a total of 2,069 exposures and 1,240 line miles. Total aircraft time involved 103 hours. This photography included provincial parks, grazing reserves, agricultural schools, burned over areas, cut over areas and numerous miscellaneous jobs for the Department of Lands and Forests and other government agencies.

In addition to the aerial photography, 17 ground photo projects were undertaken involving 243 exposures primarily from forestry lookouts.

TOPOGRAPHIC MAPPING

57 individual topographic projects were completed on the stereo plotting equipment involving 901,485 acres. Sixty-three projects are in hand.

MAPPING SECTION

The transfer of 22 positions from the Forest Surveys and Planning Branch to the Technical Division became effective October 1, 1968. A physical transfer of personnel and equipment was undertaken shortly after. However, the final amalgamation was not completed until all work pertaining to the Atlas of Alberta was finalized, and this was accomplished during September, 1969. At this time various work units in the mapping section were expanded allowing the section to function more effectively as a service organization to the Department of Lands and Forests.

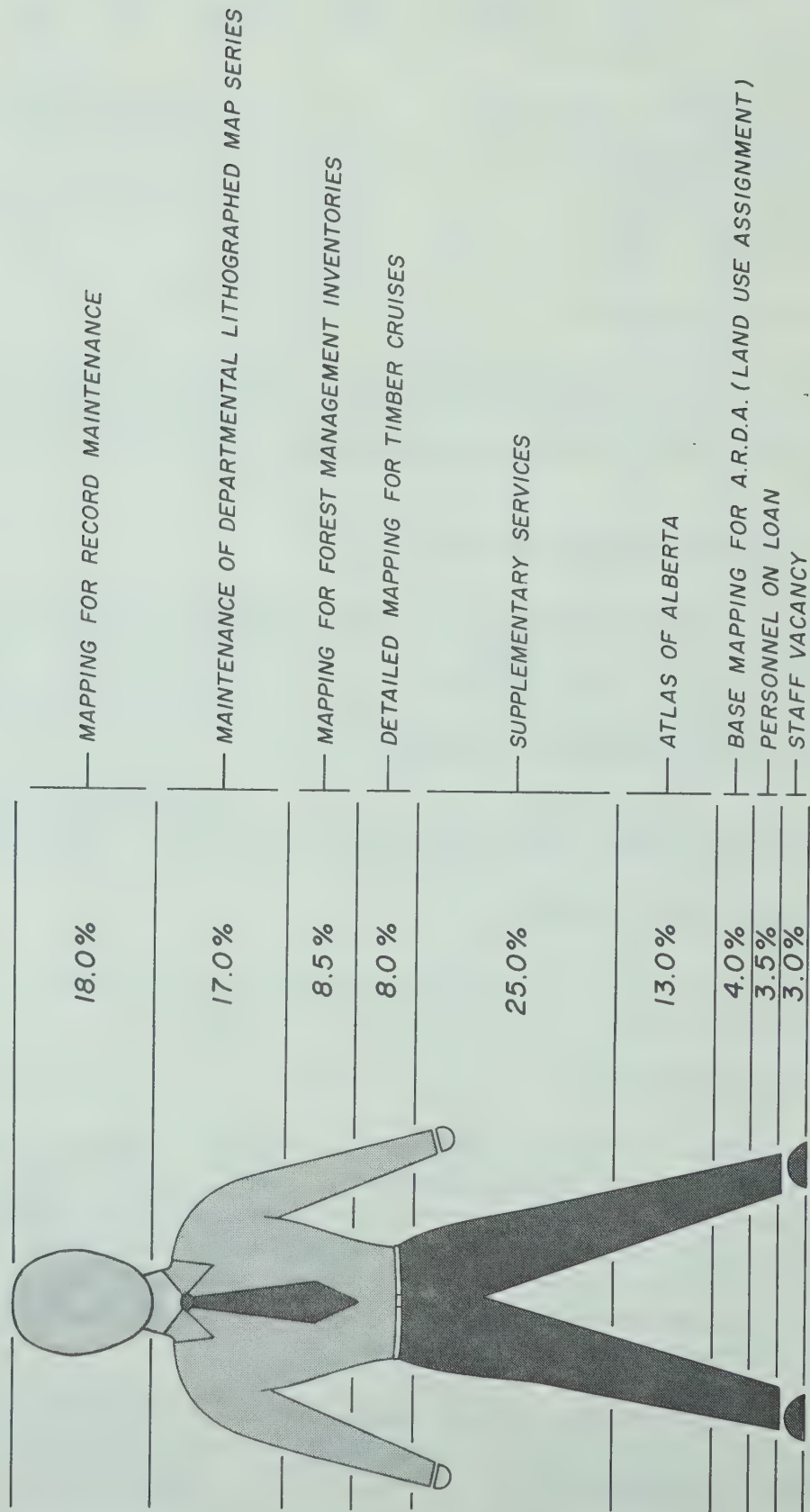
The accompanying pages illustrate diagrammatically the extent of the service provided.

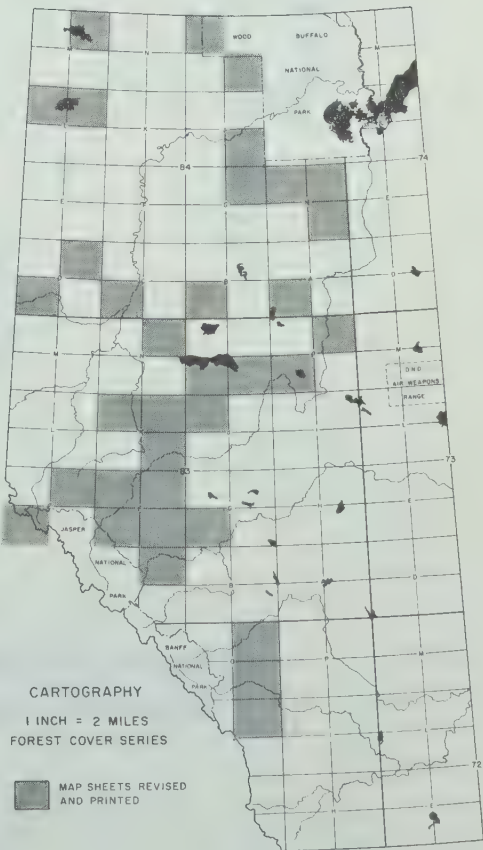
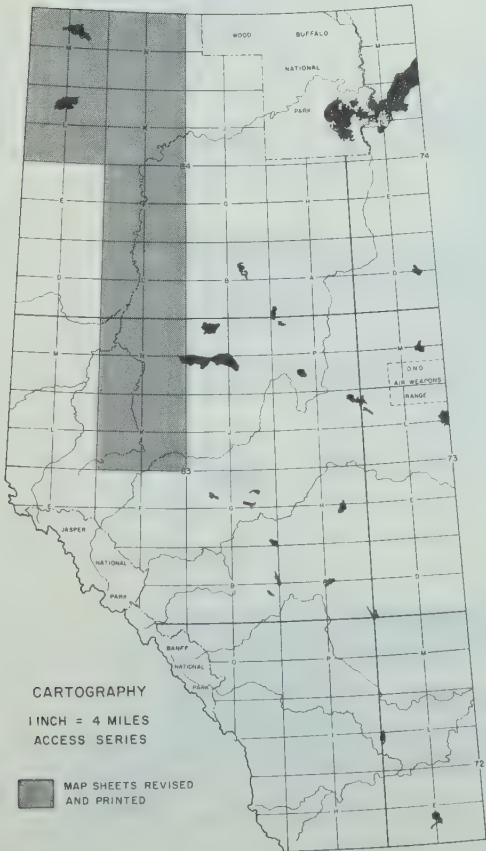
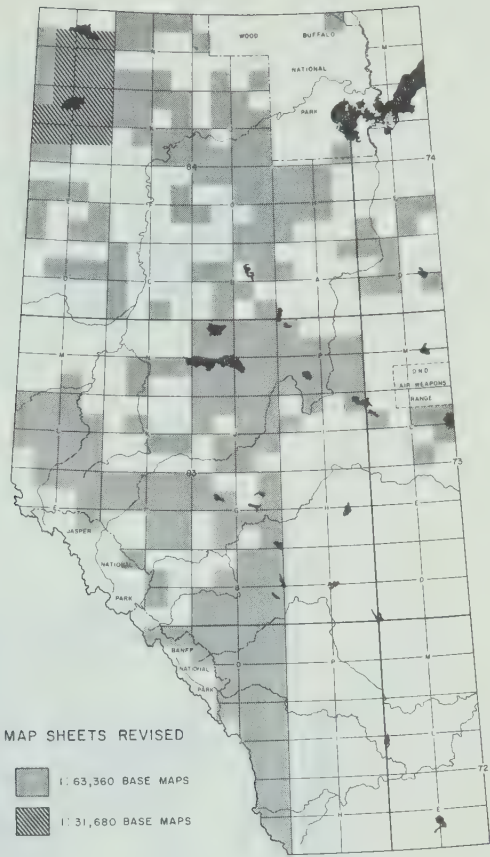
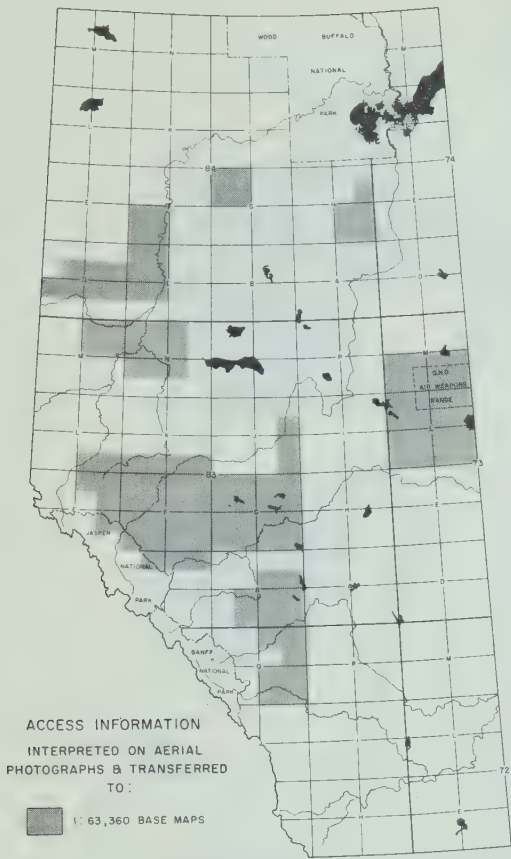
ATLAS OF ALBERTA

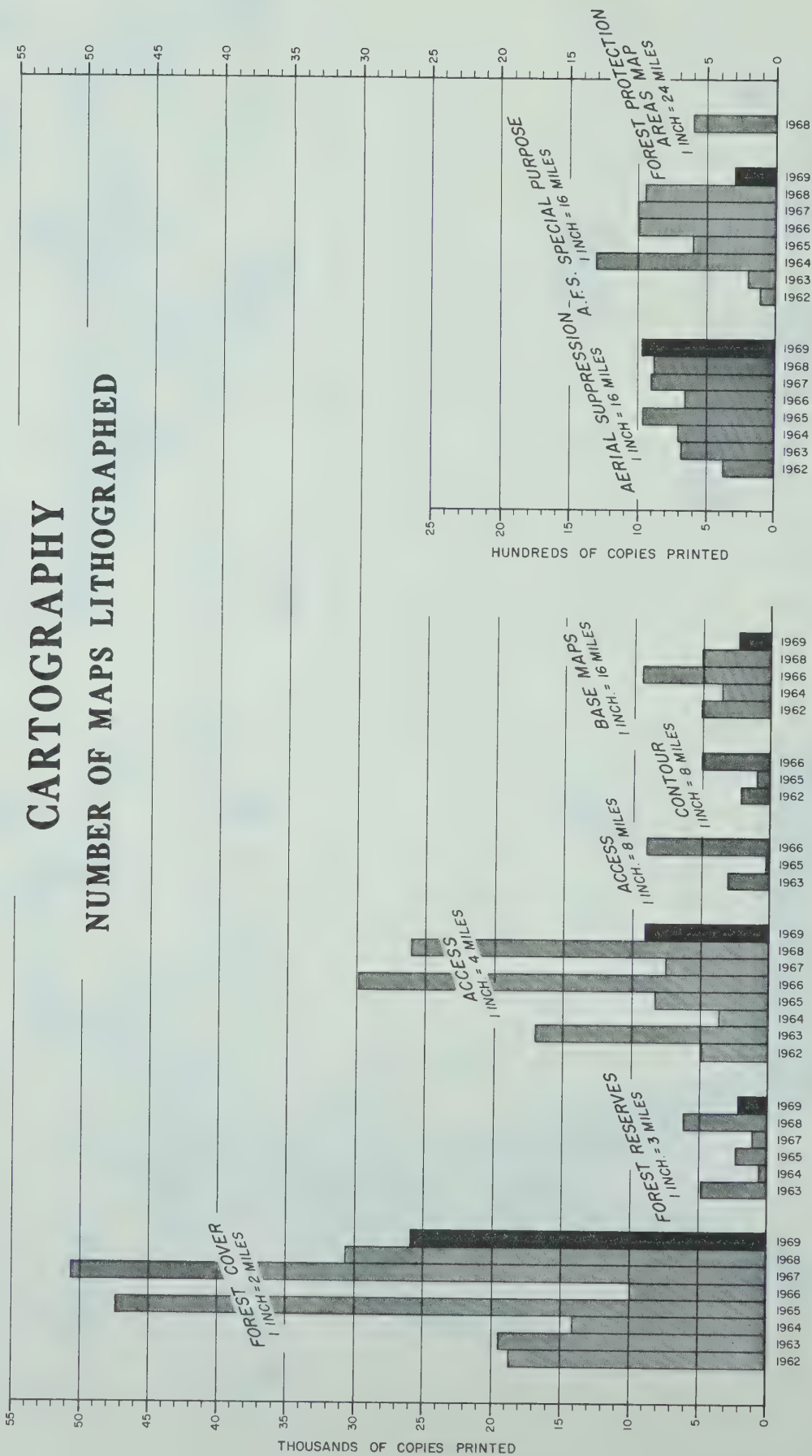
The fiscal year saw the completion, printing and publication of the long awaited Atlas of Alberta project. Ten thousand plus copies of the Atlas were printed and bound by Evergreen Press in Vancouver and were delivered to the department prior to March 31, 1970.

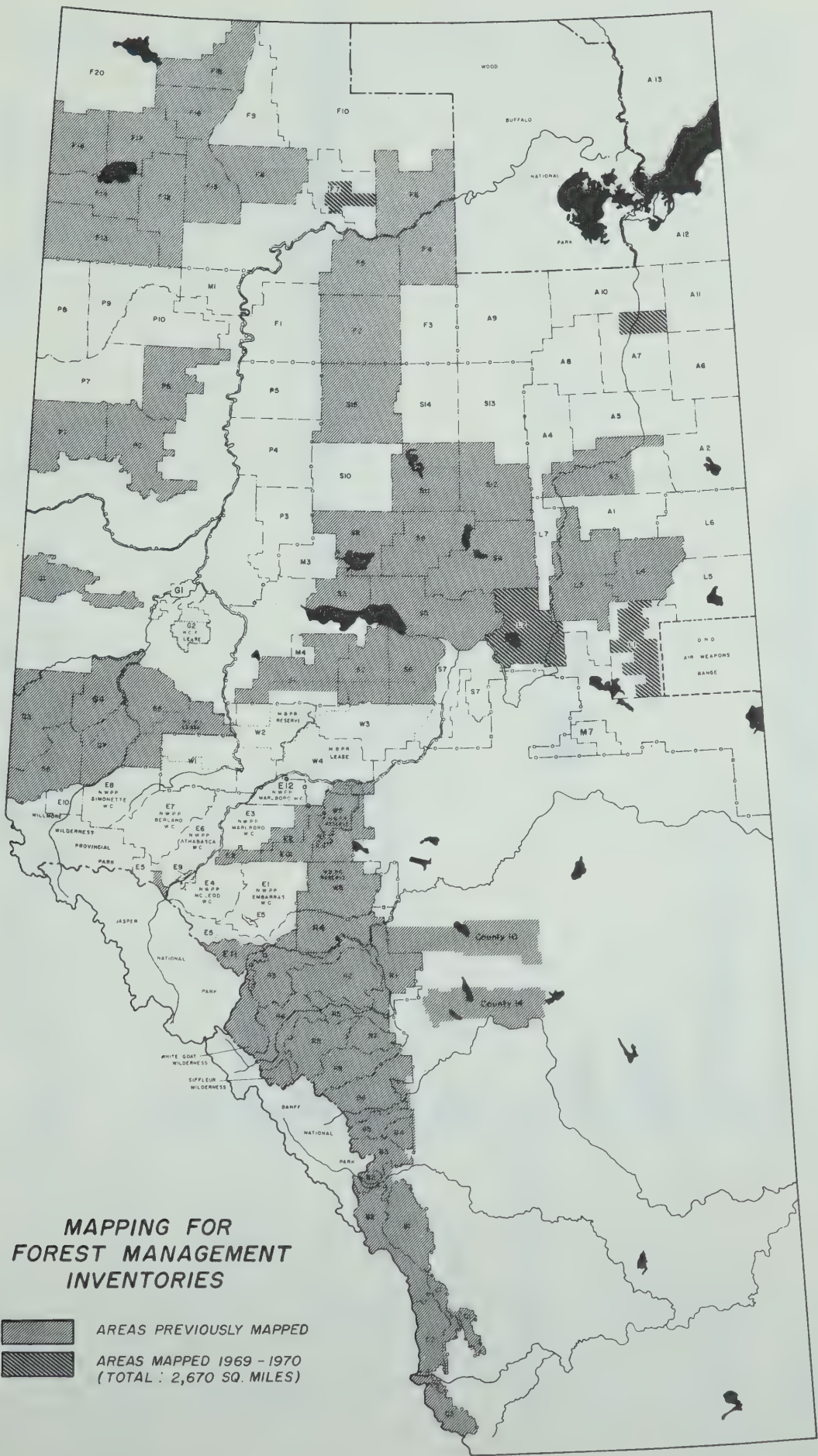
FUNCTIONS OF THE MAPPING SECTION

APRIL 1, 1969 TO MARCH 31, 1970

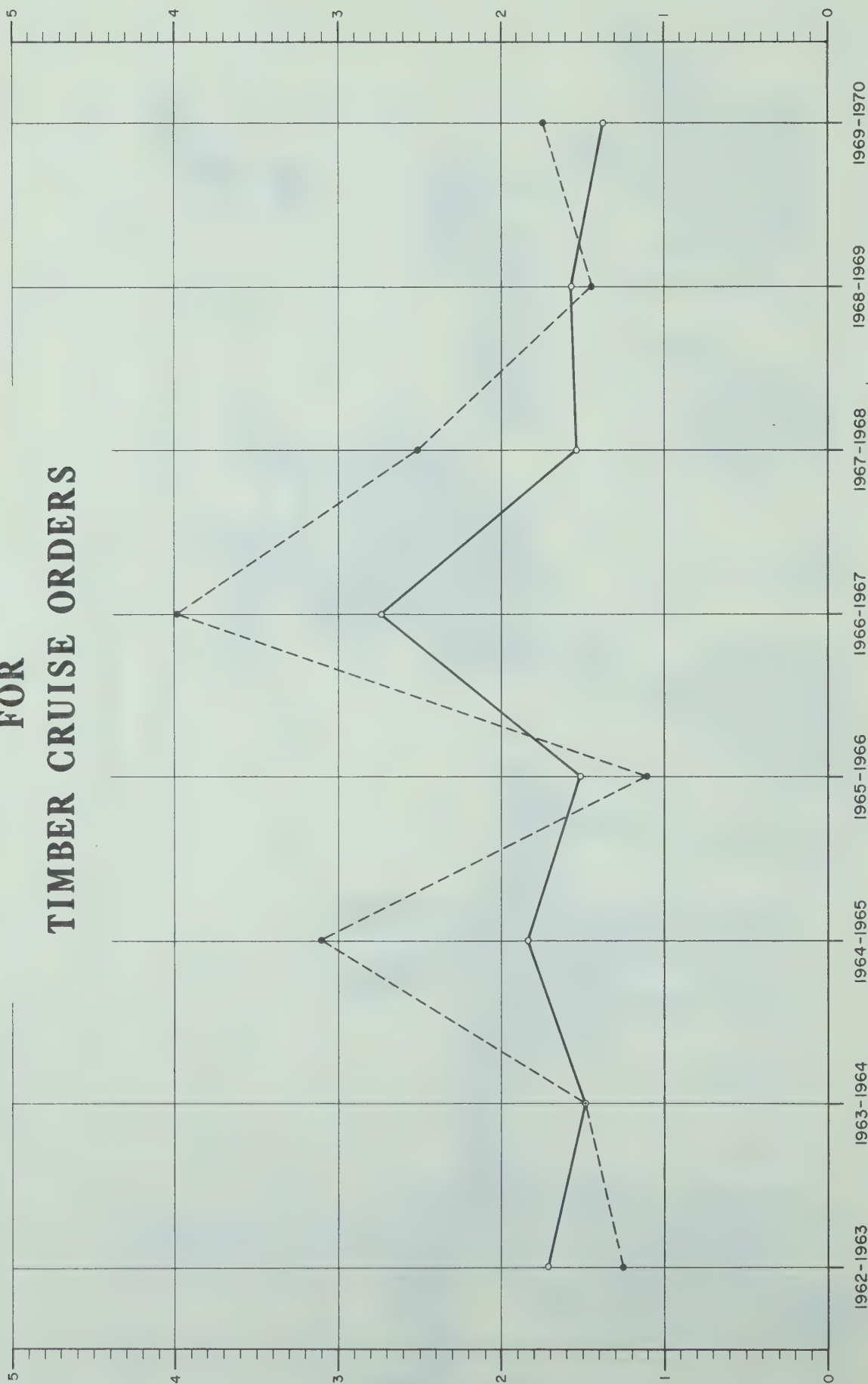








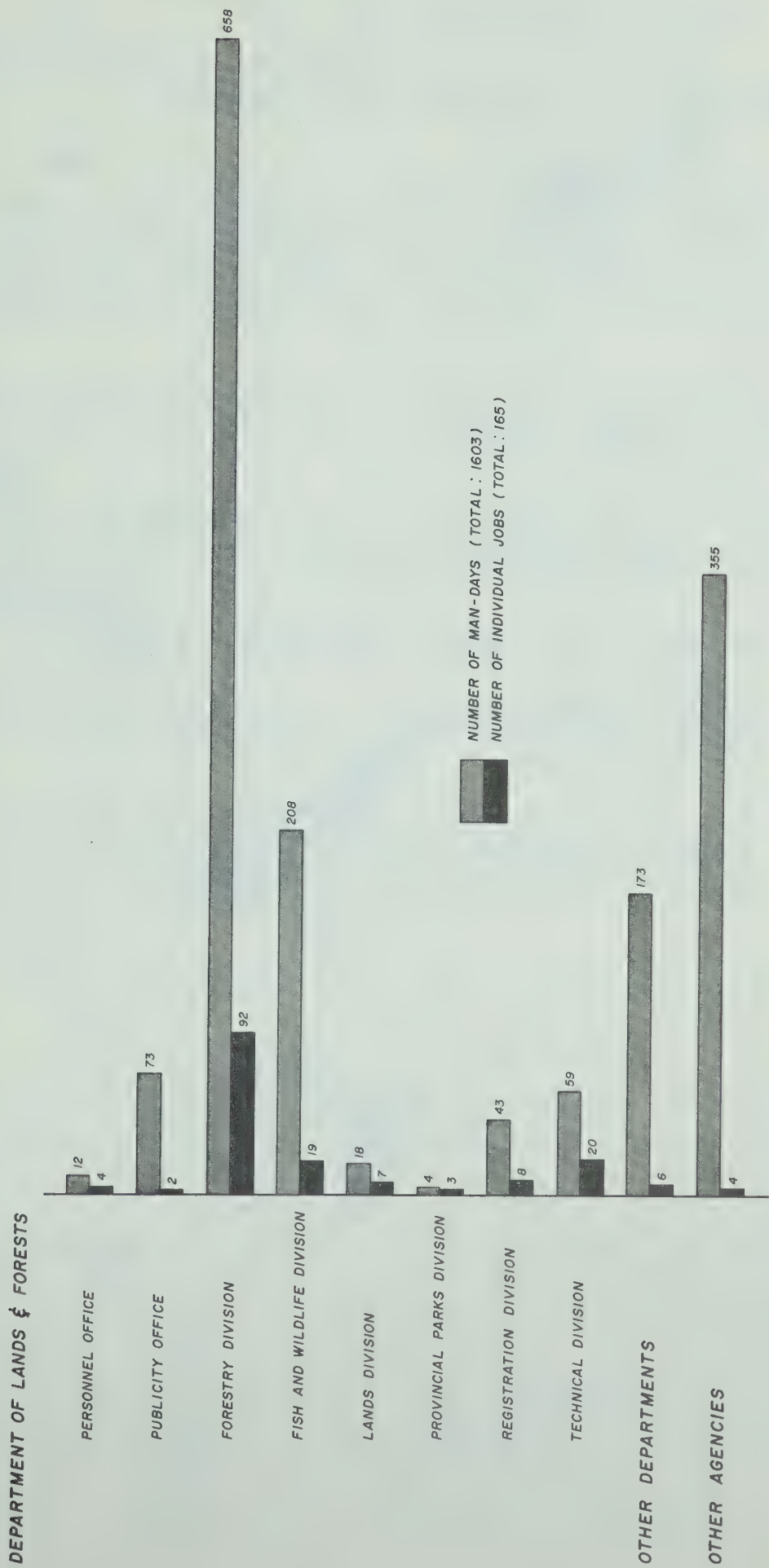
DETAILED MAPPING FOR TIMBER CRUISE ORDERS



—○— HUNDREDS OF MAPS DRAWN

- - -●- - THOUSANDS OF SQUARE MILES MAPPED

SUPPLEMENTARY SERVICES
PROVIDED BY THE MAPPING SECTION



MAP AND AERIAL PHOTOGRAPH SALES

During the fiscal year sale of aerial photographs, enlargements, etc. amounted to \$63,640.10 and sale of maps amounted to \$28,374.66.

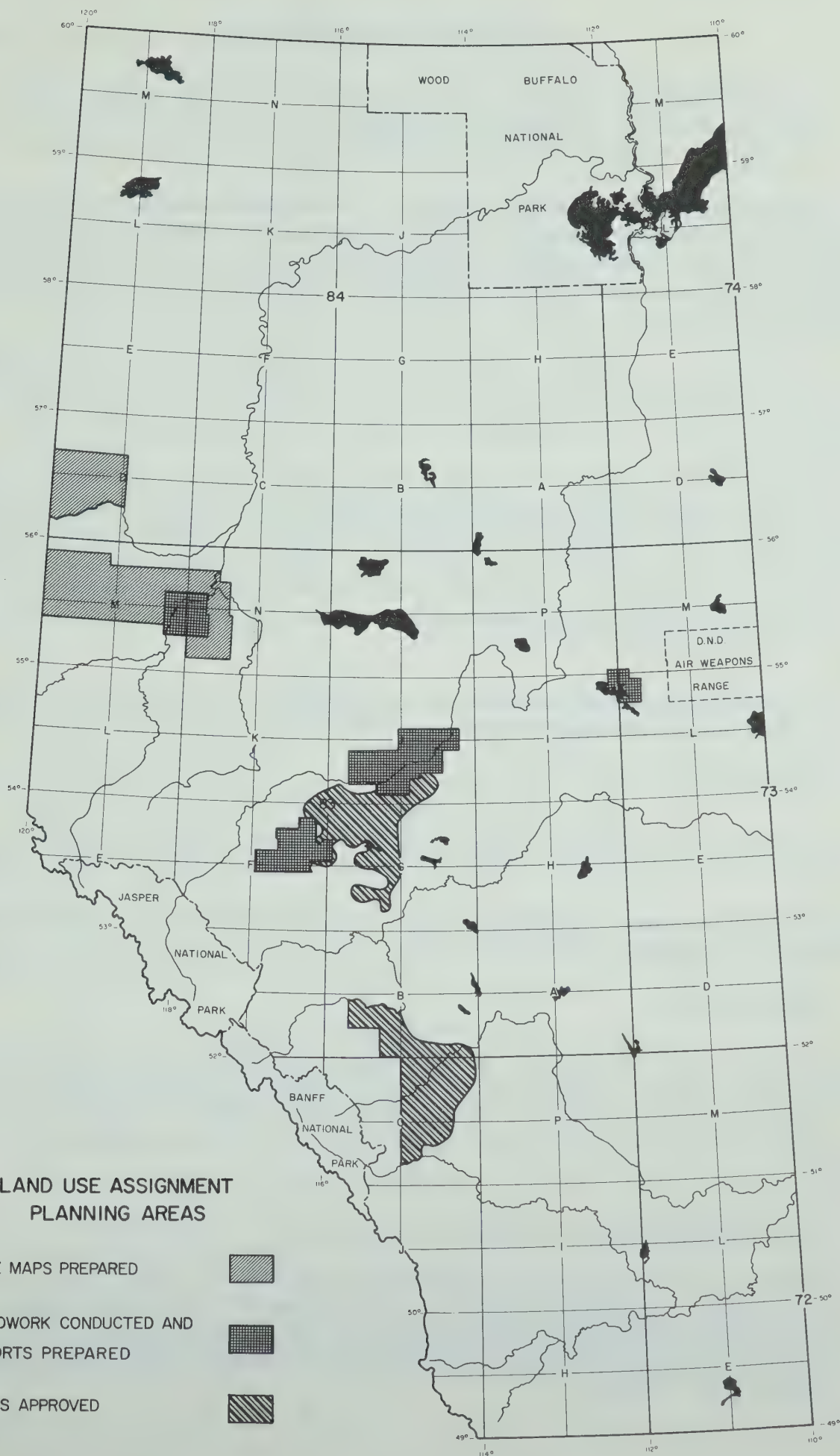
LAND USE ASSIGNMENT

The Land Classification and Zoning Project of the Forest Surveys and Planning Branch, Forestry Division, was transferred to the Technical Division effective July 1, 1969. The project is now operated by the Land Use Assignment Section under the guidance of the Land Use Assignment Committee, a multidisciplinary committee consisting of five members.

The section is responsible for the determination of primary and secondary uses of public lands in the Province of Alberta and subsequently for proposals on the zoning of these lands into green, white and yellow zones.

Additions to the staff and restriction of duties to land classification and zoning made it possible to increase the number of planning areas considerably. The map included shows the land use planning process in three stages:

1. Basemaps prepared — the preparation of all basic data in map form.
2. Fieldwork conducted and report prepared. This stage involves gathering of field data, interviews with local people, consultation with contributing agencies and the preparation of a report.
3. Plans approved — this stage consists of meetings with government personnel of various departments both in the district and at head office, the Farm Adjustment Committees and local farmers. The final plan is approved by Ministerial Order.



REGISTRATION DIVISION

REPORT OF THE REGISTRAR

H.E. BENNETT

Registration is primarily a service division and to a degree the success of the administration divisions within the department is dependent upon the efficiency of this division. During the year 1969-70, many of our procedures have been updated, streamlined and improved, and a great deal of credit is due to the staff of each section in their willingness to accept change.

On April 1st, 1969, the departmental library, together with two employees, were transferred to become a section of the Registration Division. In June, the library was moved into more suitable and spacious offices in order to supply better service. — see library report.

Also on April 1st, 1969, another new section, the first in the Provincial Government, was made part of this division. The section is referred to as “Systems and Procedures” and is under the capable direction of Mr. John Parsons who has had a great deal of experience in this field. He is assisted by a clerk typist. During the year several new forms, procedures, organizational studies and work studies have been conducted and implemented within the department. — see report.

Following is a brief statement of the other sections, and details concerning them may be found by referring to the statistical report.

MAIL CAGE

All incoming and outgoing mail for the department is handled by two clerks and they also record all revenue received through the mail or from those attending in person.

The statistical report shows that the volume of mail is down slightly but revenue received continues to increase.

FILING SECTION

The main purpose of this section is to properly record, prepare files and to deliver and make them available to departmental personnel. The report indicates that approximately 8,000 new files are being prepared each year and a like number are being closed. In order to keep ahead of the paper volume, one clerk spends her full time microfilming closed files.

RECORDS SECTION

Personnel in this section have the responsibility to maintain the official township registers of the province, containing all surveyed land. All leases, permits, time sales, assignments, etc., are recorded until the land is patented, at which time it then becomes the responsibility of the Land Titles Office. The volume of work decreased slightly during 1969, as indicated in the statistics.

SURFACE RIGHTS PLOTTING SECTION

This section is comprised of four technologists who maintain scaled transparency plots and plans on a daily basis of all surface activities such as timber rights, easements, sand and gravel leases and all surface rights on Crown lands pertaining to the oil industry.

The plotted information is readily available and saves a great deal of time and confusion when processing new applications. Since the compiled data is unique in Canada, and not readily available from any other source, permission has been given for representatives of the oil industry to make use of the plots, assisted by a technologist when preparing new applications. The primary purpose of this section is to serve the department and the bi-product is to assist the public without any guarantee to them as to the accuracy of the plotting.

LIBRARY

During the year under review, several significant changes took place in the operation of the Department of Lands and Forests library. The library was transferred to the Registration Division, at which time all films and photographic equipment were removed and transferred to the Technical Division.

Increased space was allotted to the library which made it possible to provide a reading area.

The main project, undertaken during the latter part of the year, was a survey of all books owned by the department and held in head and branch offices. This resulted in 1,460 books being added to the library inventory. During the year over 600 new books were purchased for all divisions of the department, and 267 subscriptions and memberships were processed. Increases were recorded in all phases of library service.

SYSTEMS AND PROCEDURES

During the fiscal year 1969-70, a total of eight studies were commenced within the department and one study commenced involving interdepartmental procedures. Of the nine, five were completed during the fiscal year: —

1. Special Land Use organization and procedure study.
2. Personnel Office filing systems study.
3. Forest Land Use Branch organization study.
4. Departmental reservation procedure study.
5. Special Land Use work measurement study.

The latter study was the first in a departmental program of establishing staffing guides, based on measured work standards.

The preliminary report of a total system study of the Farm Adjustment Program is to be submitted early in the next fiscal year. This study was requested jointly by the Department of Agriculture and the Department of Lands and Forests using a six man study team.

Studies to be completed are: —

1. Forest Land Use Branch work measurement study.
2. Forest Land Use Branch procedures study.
3. Fish and Wildlife Division organization and systems study.
4. Alberta Forest Service forms control study.

REGISTRATION

	Yearly Total	Daily Average	Increase (+) or Decrease (-) from Previous Years	Minimum and Maximum Range Per Day
1. Mail Cage				
Incoming mail (pieces)	161,796	655	- 7.5	354 - 1,388
Outgoing mail (pieces)	280,145	1,134	- 8.3	482 - 6,472
Total (pieces)	441,941	1,789	- 8	836 - 7,860
Incoming Registered (pieces)	2,860	12	- 15	3 - 75
Outgoing Registered (pieces)	1,461	6	- 57.6	0 - 39
Total (pieces)	4,321	18	- 36.5	3 - 114
Cash Blotter Entries	33,760	137	- 8.8	59 - 419
Interim receipts issued	3,181	13	- 9	3 - 28
Total	36,941	150	- 8.8	62 - 447
Cash Received (mail)	\$10,710,461.96	\$43,362.19	- 2	\$8,531.18 - 176,533.20
Cash Received (counter)	\$ 1,212,456.32	\$ 4,908.73	+ 22.6	\$ 46.00 - 44,181.58
Total	\$11,922,918.28	\$48,270.92	+ .02	\$8,577.18 - 220,714.78
2. Filing				
Files (live, storage, micro- film (Grand Total)	564,089			
Telephone requests for files	33,153	134	- 4.8	55 - 240
Deferred & Special Searches	3,027	12	- 17.3	2 - 29
Files supplied re; deferred & Special Searches	3,958	16	- 20.1	2 - 37
Files supplied as per written requests	47,292	192	-	12 - 1,008
3. Filing Records				
	7,845	32	- 53.1	
Files opened	7,845	32	- 53.1	
Files closed	7,821	32	+ 7.1	
Kardex Entries	37,402	151	- 26.4	
Files Processed	96,244	390	- 19.8	
Marking & Attachments	201,101	815	- 12.9	300 - 1,661
4. Microfilming				
Rolls Film Exposed	161		- 43.7	
Rolls Film Checked	161		- 43.7	
5. Records				
Files Received	46,810	189	- 4.7	70 - 499
Land Searches (internal) Pages	20,551	83	- 3	41 - 280
Land Searches (commercial) Pages	2,146	9	-	1 - 34
Register Pages Transcribed	1,194	5	- 3.7	
Assignments Registered	693			
Notifications	931			
Reservations	927			
6. Surface Rights Plotting				
Total Plots Opened	2,955			
Files received in Distribution	8,495	34	- 5.4	5 - 113
Special Use Applications	2,750			

ACCOUNTS DIVISION**REPORT OF THE ADMINISTRATIVE ACCOUNTANT***A. McCALLUM*

Gross receipts from all sources amounted to	\$ 12,637,014.50
Total disbursements (Income and Capital)	20,803,694.21
Excess of disbursements over receipts	8,166,679.71
Net receipts from all sources	11,009,877.78

REVENUE

Net receipts on Income Account amounted to \$9,001,065.70, an increase of \$582,275.71 from the previous year.

Total amount of monies refunded during the year amounted to \$1,627,136.72. There was a further amount of \$301,713.49 refunded in respect of revenue received in a previous year. Refunds to the Taxing Authority as provided by The Grazing Lease Taxation Act, The Crown Cultivation Leases Act, and The Tax Recovery Act, totalled \$715,007.52.

Monies held in trust accounts as at March 31, 1970, amounted to \$655,001.52, as follows:

Miscellaneous	\$ 310,712.52
Homesteader's Compensation	2,654.38
Timber Deposits	338,734.47
Timber Forfeited Monies and Reforestation	2,900.15
	655,001.52

Active Accounts Receivable as at March 31, 1970, stood at 32,809, together with Fish and Game Vendors' Accounts totalling approximately 1,302.

Official receipts and permits issued for the year totalled 66,351 from total cash entries of 65,876.

Fishing Licences and Game Certificates and Stamps sold during the year were:

Fishing Licences	155,372
Game Certificates	117,408
Game Stamps	236,240

Under the various agreements negotiated between Canada and the province, the province was reimbursed by Canada as follows:

A.R.D.A. (Income)	\$ 108,517.63
A.R.D.A. (Capital)	614,356.08
Canada Land Inventory	246,308.36
Department of Education re: Training Program	94,539.85
Indian Reserve Fire Protection Agreement	9,450.20
Manpower Agreement	24,761.75

Collections under The Homestead Lease Loan Act amounted to \$ 99,430.48.

EXPENDITURE

Disbursements for the year on Income Account amounted to \$19,839,655.33, while capital disbursements for the same period totalled \$964,038.88.

Firefighting costs for the year were \$2,672,020.80.

In connection with the destruction of pests an amount of \$3,679.37 was disbursed.

Funds disbursed in respect of the developing and maintaining of Provincial Parks in the province amounted to \$2,720,101.63.

Under the Homestead Lease Loan Act, funds totalling \$54,844.00 were disbursed during the current year. This amount now makes the total disbursements under this Act \$2,247,447.54. Receipts for the year totalled \$99,430.48. Loans repaid to date total \$1,350,388.39.

Maintenance costs of the Eastern Rockies Forest Conservation Board Agreement, including expenses of the board, totalled \$1,022,175.56.

Aircraft patrol operations for the year totalled \$620,212.73.

During the year under review an amount of \$34,973.04 was disbursed in respect of aerial photography.

In the operation of the Wildlife Damage Insurance Fund Trust Account there were 1,385 claims through the Alberta Hail Insurance Board totalling \$713,169.27. The balance of the fund as at 31/3/70 stood at \$214,455.84. (Note: The Provincial Treasurer loaned to the Wildlife Damage Fund the amount of \$600,000.00.)

As the department continues to expand in most branches, the personnel earnings' records for both salary and wage employees continued to show an increase and for the year under review stood at:

Salaries — 1,440

Wages — 1,801

STATIONERY AND SUPPLIES

MAIL AND EXPRESS	1968/69	1969/70
Express Parcels	553	681
Mail (registered and parcels)	12,695	4,121
Pamphlets	890	1,964
Parcels by Bus	184	150
Magazines	53,679	60,000
Letters	9,823	1,071
Parcels by Messenger (Registration)	544	798
Messenger (Stationery) — Trips	—	2,154
— Parcels	—	5,539
Truck	32	30

REGULATIONS AND TAGS PROCESSED

Bird and Big Game Regulations	225,000	239,600
Big Game Tags	222,692	224,607
Angling Regulations	205,000	220,000

STATIONERY REQUISITIONS BY BRANCHES**GENERAL ADMINISTRATION**

Accounts	199	168
Personnel	51	72
Deputy Minister	43	39
Education and Information	90	65
LANDS	489	511
REGISTRATION	69	138
FISH AND WILDLIFE	559	611

ACCOUNTS

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	1968/69	1969/70
TECHNICAL	55	92
PARKS	277	288
Forest Administration	88	101
Forest Protection (Head Office)	211	207
Forest Protection (Division)	318	376
Forest Management	68	60
Forest Surveys	69	—
General Public	78	—
Radio Branch	23	—
Forest Land Use	—	38
Construction and Maintenance	—	51
Forest Technology School	55	54
TOTAL	2,742	2,871
PRINTING VOLUME		
Transmitted to Queen's Printer		
Regulations	39,150	452,250
Books and Brochures	36,916	100,170
Forms, Licences and General Printing	4,689,137	4,124,149
Magazines	57,000	67,000
Envelopes	637,800	469,000
Dept. Letterheads printed	280,000	160,000
Processed by this Office		
Xerox (books included)	206	34,003
Bruning Masters	—	1,433
Typed Masters	529	930

	1968/69	1969/70
Sheets Run Off (books included)	2,693,576	769,323
PURCHASE ORDERS INITIATED		
Direct Purchase Order	431	481
Interdept. Commitments	587	604
MISCELLANEOUS SERVICES		
Number of Newspaper Advertisements Initiated	139	226
Number of Telephone Requests Initiated	172	136
PROCESSING -- Addressograph Prepared, Amended, Cancelled	8,047	6,069
Magazine	57,000	60,000

STATEMENT "A"

STATEMENT OF RECEIPTS FROM ALL SOURCES

FROM APRIL 1, 1969 TO MARCH 31, 1970

	GROSS RECEIPTS	REFUNDS	NET RECEIPTS
Income Account	\$ 9,984,126.87	\$ 983,061.17	\$ 9,001,065.70
Capital Account	1,369,980.55	23,989.56	1,345,990.99
Reimbursement of Previous Year's Expenditure	57,722.89	163.85	57,559.04
Timber Deposits Trust	116,332.75	3,660.00	112,672.75
Homestead Compensation Trust	6,655.51	4,757.65	1,897.86
Homestead Lease Loan Trust	101,754.24	2,323.76	99,430.48
Miscellaneous Trust	415,282.06	226,517.63	188,764.43
Unapplied Receipts Carried Forward			
Improvements	63,486.55	43,491.64	19,994.91
Suspense	454,473.08	339,171.46	115,301.62
Public Lands Grazing Permits and Reserve Permits	4,200.00	—	4,200.00
Homestead Lease Crop Share	10,000.00	—	10,000.00
Public Lands Grazing Lease Rentals	53,000.00	—	53,000.00
	\$12,637,014.50	\$1,627,136.72	\$11,009,877.78

STATEMENT "B"

STATEMENT OF RECEIPTS — INCOME ACCOUNT
FROM APRIL 1, 1969 TO MARCH 31, 1970

	GROSS RECEIPTS	REFUNDS	NET RECEIPTS
FISHERIES ACCOUNTS			
Fisheries Licences	\$ 465,764.48	\$ 1,142.18	\$ 464,622.30
Fisheries Miscellaneous	810.97	—	810.97
Fisheries Royalty	12,561.95	28.80	12,533.15
	479,137.40	1,170.98	477,966.42
GAME ACCOUNTS			
Game Licences	1,360,304.85	237,396.88	1,122,907.97
Fur Tax	77,812.37	940.05	76,872.32
Game Branch Miscellaneous	2,616.94	20.28	2,596.66
	1,440,734.16	238,357.21	1,202,376.95
LANDS AND GRAZING			
Grazing Leases and Permits	967,572.93	553,209.83	414,363.10
Hay Permits	9,862.30	1,943.80	7,918.50
Homestead Leases and Crop Share	223,464.38	57,940.25	165,524.13
Provincial Land Sales Interest	153,870.92	433.02	153,437.90
Cultivation Leases and Permits	156,228.99	3,317.26	152,911.73
Right-of-Entry	738,926.32	9,712.53	729,213.79
Miscellaneous Leases	163,633.50	8,145.07	155,488.43
Public Lands Sundry Revenue	226,278.38	21,662.00	204,616.38
Sand and Gravel Leases, Permits	142,883.32	10,842.34	132,040.98
Land Patent Miscellaneous	151.14	12.50	138.64
	2,782,872.18	667,218.60	2,115,653.58
TIMBER ACCOUNTS	4,070,017.88	30,594.09	4,039,423.79
EAST SLOPE SURFACE RIGHTS	406,374.10	1,683.82	404,690.28
PARKS PERMITS, FEES, RENTALS	154,756.07	625.20	154,130.87
MISCELLANEOUS			
Administration Sundry Revenue	182,354.22	2,851.52	179,502.70
Maps and Plans	40,606.96	12,232.30	28,374.66
Aircraft Landing Fees	13,683.39	—	13,683.39
Sale of Aerial Photographic Maps	91,836.28	28,196.18	63,640.10
Reimbursement re Forest Technology School	22,428.13	5.00	22,423.13
Sale of "Atlas of Alberta"	15,853.50	18.00	15,835.50
Dominion-Provincial Manpower Agreement	24,761.75	—	24,761.75
Sale of Automobiles	—	—	—
Sale of Equipment	50.00	—	50.00
Sale of Materials and Supplies	26.00	—	26.00
Dominion-Provincial Agreement Re: Air Weapons Range Primrose Lake	53,049.98	—	53,049.98
Reimbursement of Salaries	27,361.03	—	27,361.03
Services and Supplies to Staff	62,467.37	108.27	62,359.10
Rentals (House)	11,766.42	—	11,766.42
Reimburse Department of Education Re: Training Program	94,539.85	—	94,539.85
Trans-Canada Hwy. & Picnic Area Program	—	—	—
Indian Reserve Fire Protection Agreement	9,450.20	—	9,450.20
Vocational Training, Forest Technology School	—	—	—
	650,235.08	43,411.27	606,823.81
GRAND TOTALS	\$9,984,126.87	\$983,061.17	\$9,001,065.70

STATEMENT "C"

STATEMENT OF RECEIPTS – CAPITAL ACCOUNT

FROM APRIL 1, 1969 TO MARCH 31, 1970

	GROSS RECEIPTS	REFUNDS	NET RECEIPTS
Clearing and Breaking Projects	\$ 3,985.82	\$ —	\$ 3,985.82
Public Lands Sales Principal	883,345.50	10,818.12	872,527.38
Homestead Sales Principal	480,541.27	13,171.44	467,369.83
Land Utilization Advances	2,107.96	—	2,107.96
	\$1,369,980.55	\$23,989.56	\$1,345,990.99

STATEMENT "D"

STATEMENT OF RECEIPTS BY BRANCHES
FROM APRIL 1, 1966 TO MARCH 31, 1970

FISCAL YEAR ENDING:

INCOME ACCOUNT	MARCH 31/67	MARCH 31/68	MARCH 31/69	MARCH 31/70
Fisheries Branch	\$ 280,781.78	\$ 288,121.12	\$ 449,381.87	\$ 477,966.42
Game Branch	810,352.65	1,127,948.25	1,258,192.44	1,202,376.95
Lands and Grazing	2,104,548.98	2,320,860.82	2,395,117.51	2,115,653.58
Timber Branch	3,215,331.60	3,169,933.46	3,263,875.30	4,039,423.79
East Slope Surface Rights	316,443.89	337,647.61	353,294.40	404,690.28
Miscellaneous	1,326,888.77	502,901.48	595,956.22	606,823.81
C.L.I. and A.R.D.A. Claims Processed Through Department of Agriculture	105,972.02	187,797.63	262,697.68	354,825.99
Claims re: Technical and Vocational Training Agreement deposited by Department of Agriculture	90,847.85	—	—	—
Provincial Parks	62,404.39	69,571.68	101,686.58	154,130.87
CAPITAL ACCOUNT				
Land Sales Principal	993,640.94	957,826.60	1,038,038.35	872,527.38
Homestead Sales Principal	543,868.40	647,873.28	566,556.89	467,369.83
Clearing and Breaking Projects	24,479.64	16,060.31	7,389.23	3,985.82
Reimbursement by Dominion Government re: Forest Agreement	177,108.02	—	—	—
Land Utilization Advances	7,074.45	3,049.42	3,324.36	2,107.96
Dominion Government Grant re: Wabasca Airport	—	46,459.81	—	—
Dominion Government Grant re: Footner Lake Airport	—	117,114.95	—	—
Trans-Canada Hwys. Campgrounds and Picnic Areas Program	—	—	2,805.33	—
A.R.D.A. Claims Processed Through Department of Agriculture	—	74,091.21	524,661.63	614,356.08
Dominion Government Grant re: Ft. Chipewyan Airport	100,000.00	—	—	—
Transferred to Other Departments (PyR)	6,778.14	22,530.11	19,106.99	57,559.04
Timber Deposits Trust	51,290.00	51,591.10	216,281.63	112,672.75
Homestead Compensation Trust	1,502.08	4,235.55	3,594.04	1,897.86
Homestead Lease Loan Trust	141,835.26	140,002.42	99,690.01	99,430.48
Miscellaneous Trust	104,431.59	68,495.97	91,582.84	188,764.43
Unapplied Receipts carried forward	436,536.70	473,705.07	452,355.89	202,496.53
	\$10,902,117.15	\$10,627,817.85	\$11,705,589.19	\$11,979,059.85

ACCOUNTS

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GOVERNMENT OF THE PROVINCE OF ALBERTA
LANDS AND FORESTS DEPARTMENT
EXPENDITURE CLASSIFIED BY APPROPRIATIONS AND CHARACTER

FOR THE YEAR ENDED MARCH 31, 1970
INCOME ACCOUNT

STATEMENT "E"

Service	1801 Minister's Office	1802 General Administration	1803 Advisory Board and Committees	1804 Technical Division	1805 Registration Division	1815 Alberta Forest Service—Forest Administration Branch	1816 Alberta Forest Service—Forest Management Branch	1817 Alberta Forest Service—Quota Reforestation	1818 Alberta Forest Service— Silviculture	1819 Eastern Rockies Forest Conservation Board	1820 Alberta Forest Service—Forest Land Use	1821 Alberta Forest Service—Forest Maintenance	1822 Alberta Forest Service—Forest Fire Control	1823 Alberta Forest Service—Forest and Prairie Fires Suppression	1825 Alberta Forest Service—Aircraft Operations	1826 Alberta Forest Service—Radio Branch	1828 Alberta Forest Service—Forestry Training School	1829 Junior Forest Rangers	1835 Fish and Wildlife Division	1836 Wildlife Damage Control	1845 Lands Division	1846 Provincial Parks	Totals
Advertising	\$ —	\$ 8,358.10	\$ —	\$ —	\$ —	\$ —	\$ 2,773.02	\$ —	\$ —	\$ —	\$ 146.36	\$ 411.42	\$ —	\$ —	\$ 5,890.46	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 3,605.35	\$ 753.81	\$ 21,938.52
Automobiles, trucks and mobile equipment, purchase	3,172.44	—	—	—	2,436.78	—	3,554.53	—	20,803.38	—	—	288,637.03	—	—	62,258.67	—	15,357.95	5,851.60	112,926.03	—	7,802.74	266,735.69	789,536.84
Automobiles, trucks and mobile equipment, expenses	—	1,006.85	—	1,463.79	562.06	2,483.90	2,526.64	—	1,934.29	1,374.39	1,253.51	445,392.70	1,503.87	101,964.57	124,495.08	374.29	5,389.63	1,580.45	41,621.85	181.01	14,080.45	152,483.07	901,672.40
Buildings and sites	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,304.00	6,326.00	7,630.00
Canada Pension Plan — employer's contribution	—	—	—	—	—	—	—	—	—	219.68	—	—	—	—	—	—	—	—	—	—	—	—	219.68
Compensation	—	—	—	—	—	—	310.61	—	—	—	—	1,944.31	—	—	—	—	—	—	—	—	1,077.50	—	3,332.42
Contracts and agreements	—	—	—	2,403.70	—	101.80	520.20	—	25,188.98	—	208.82	1,092,351.39	125.25	58,942.86	162,049.44	1,145.16	—	—	1,780.99	—	5,605.84	42,329.70	1,392,754.13
Entertainment expenses	—	192.53	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	192.53
Fees and commissions	—	1,333.97	400.00	—	—	583.16	—	—	24,863.83	1,428.00	628.52	4,669.87	186.68	2,080.16	6,233.76	—	647.92	—	9,697.95	—	2,512.62	7,217.92	63,616.56
Freight, express and cartage	—	1,354.03	—	895.78	—	39,872.03	2,013.72	2,130.80	4,436.40	—	1,288.05	10,026.07	—	57,959.76	1,117.43	318.53	961.77	630.60	10,218.35	—	3,417.20	13,412.11	150,052.63
Furnishings, equipment and tools	574.70	5,781.82	—	10,367.17	1,087.01	8,761.54	2,784.75	—	22,687.81	313.75	—	52,033.30	20,737.52	14,767.14	18,084.29	8,274.35	6,227.67	182.02	28,673.67	14,662.60	60,469.71	276,470.82	
Grants, prizes	—	—	—	—	—	23,626.25	—	—	—	—	—	—	—	—	—	—	—	—	17,598.00	—	—	1,200.00	42,424.25
Insurance	—	—	—	—	—	—	—	—	—	—	—	930.00	—	—	22,180.96	—	—	—	415.93	—	443.59	6,140.56	30,111.04
Interest	—	—	—	—	—	—	—	—	—	—	—	—	—	831.73	—	—	—	—	—	—	726.51	—	1,558.24
Livestock, fur bearing animals, poultry, insects and fish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Maintenance in homes and schools	—	—	—	—	—	—	—	—	—	—	—	—	—	—	828.75	—	18,773.00	—	1,440.12	—	—	—	1,440.12
Materials and supplies, administrative	366.93	118,639.70	—	173,659.15	6,337.31	75,546.65	57,238.37	419.15	39,112.41	2,024.77	5,875.85	46,225.27	22,694.13	332,988.19	708.34	2,935.72	41,408.33	11,565.35	102,006.74	646.74	78,352.66	62,391.09	1,181,142.85
Materials and supplies, construction	—	256.57	—	1,923.40	—	126.35	9,199.72	—	4,485.90	—	375.92	94,557.02	6,523.80	7,242.86	1,916.04	10,379.10	1,446.94	1,151.46	9,993.61	349.51	39,107.91	164,184.07	353,220.18
Miscellaneous expenses	55.24	23.43	—	92.63	129.58	75.93	185.06	75.04	—	253.13	235.08	—	177.11	95.09	2.75	—	203.30	15.52	123.96	98.46	3.87	—	1,846.00
Postage	170.00	10,409.20	—	1,437.10	111.64	9,215.96	8,450.60	93,781.75	115,243.38	—	—	838.44	—	—	—	803.64	—	7,702.55	—	17,864.59	3,344.71	52,053.33	
Rentals	—	8,121.24	—	2,131.74	—	14,427.58	8,450.60	93,781.75	115,243.38	—	19,490.39	226,791.58	358.00	1,224,500.69	214,157.19	3,699.11	3,928.70	4,339.17	32,484.04	—	14,236.29	66,148.64	2,052,290.09
Repair and maintenance of furnishings, equipment and tools	—	148.09	—	523.53	—	—	404.71	—	245.59	—	—	17,588.89	21,861.62	4,395.35	134.72	7,393.70	1,152.71	533.83	1,834.30	—	509.96	9,688.86	66,415.86
Repair and maintenance of office machines	—	3,660.17	—	686.73	722.65	3,557.05	1,683.18	—	—	—	—	3,520.02	—	—	—	115.24	892.43	—	2,938.26	—	3,873.55	1,067.88	22,717.16
Salaries	19,905.27	459,043.71	—	585,305.69	194,514.79	3,172,780.47	295,209.93	—	32,442.73	38,790.00	145,370.12	271,618.65	164,976.65	—	—	65,994.59	110,383.08	—	1,095,744.66	—	850,431.81	568,536.15	8,071,048.27
Taxes	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	873.65	—	—	—	—
Telephone and telegraph	1,015.38	1,966.84	—	665.98	—	31,572.07	4,194.08	—	558.74	538.37	2,106.59	7,494.33	5,424.81	4,750.33	563.64	442,778.53	2,740.69	—	33,949.58	—	14,159.49	32,795.22	587,274.67
Travelling expenses of other than public servants	—	—	371.45	330.50	—	221.20	1,499.04	—	210.66	1,005.02	416.30	—	13,048.80	—	—	3,716.22	134.55	—	1,665.85	—	330.86	—	22,950.45
Travelling expenses of public servants	2,216.40	9,634.46	—	7,138.65	93.85	213,485.40	22,229.52	236.50	4,431.27	2,696.72	7,475.73	22,376.91	3,146.97	19,019.07	—	2,483.46	15,468.81	1,788.45	214,048.64	1,698.20	76,199.58	95,167.80	721,036.39
Tuition	—	1,997.05	—	275.11	—	—	—	—	—	—	—	165.00	—	—	163.20	—	—	—	233.50	—	230.00	—	3,196.36
Unemployment insurance, government portion	—	—	—	—	—	3,553.13	1,069.25	—	457.86	—	—	2,996.30	399.94	2,076.66	—	—	—	—	142.80	—	507.55	4,975.77	16,403.18
Utilities	—	—	—	—	—	1,914.65	946.63	103.21	296.13	—	130.36	106,532.43	—	2,192.33	—	—	155.24	188.72	2,639.29	—	592.08	69,747.21	185,438.28
Wages	—	12,090.81	—	4,716.69	1,101.95	44,389.61	209,848.87	2,782.21	106,516.19	28,327.75	12,735.59	388,714.56	80,098.13	823,336.46	254.76	5,273.19	29,322.38	23,977.33	66,347.46	705.45	91,614.50	779,126.15	2,711,280.04
TOTAL: Income Account.....	\$27,476.36	\$644,018.57	\$771.45	\$795,147.54	\$207,097.62	\$3,646,605.34	\$626,331.82	\$99,528.66	\$403,915.55	\$77,127.08	\$197,320.89	\$3,086,231.79	\$328,214.45	\$2,671,020.80	\$620,020.80	\$551,165.79	\$259,204.33	\$51,939.05	\$1,797,101.78	\$3,679.37	\$1,331,169.74	\$2,414,374.62	\$19,839,655.33

CAPITAL ACCOUNT

Service	1881 Aerial Photography and Forest Inventory	1882 Forestry Construction	1883 Capital Land Purchase	1885 Lands and Development	1886 Parks Development	Totals
Advertising	\$ -	\$ 226.94	\$ -	\$ -	\$ -	\$ 226.94
Automobiles, trucks and mobile equipment, purchase	-	6,945.00	-	-	-	6,945.00
Automobiles, trucks and mobile equipment, expenses	-	5,975.36	-	-	-	5,975.36
Buildings and sites	-	9,020.00	-	27,938.45	-	36,958.45
Contracts and agreements	34,973.04	120,245.61	-	43,449.04	20,679.33	219,347.02
Fees and commissions	-	240.50	-	-	\$ 22,854.03	23,094.53
Freight, express and cartage	-	10,356.03	-	-	198.74	10,554.77
Furnishings, equipment and tools	-	22,515.76	-	-	4,083.29	26,599.05
Land	-	-	23,700.00	-	-	23,700.00
Materials and supplies, administrative	-	12,617.84	-	105.41	1,390.50	14,113.75
Materials and supplies, construction	-	111,499.11	-	7,351.16	65,560.80	184,411.07
Miscellaneous expenses	-	34.90	-	1.60	38.82	75.32
Rentals	-	254,228.77	-	16,164.98	11,876.10	282,269.85
Repair and maintenance of furnishings, equipment and tools	-	278.81	-	-	-	278.81
Travelling expenses of public servants	-	879.00	-	-	-	879.00
Unemployment insurance, government portion	-	-	-	-	-	-
Utilities	-	1,148.20	-	-	-	1,148.20
Wages	-	1,327.20	-	-	-	1,327.20
TOTAL: Capital Account	\$34,973.04	\$678,395.22	\$23,700.00	\$95,847.90	\$131,122.72	\$964,038.88

DEPARTMENT OF LANDS AND FORESTS

STATEMENT "F"

STATEMENT OF DISBURSEMENTS BY BRANCHES

FROM APRIL 1, 1965 TO MARCH 31, 1970

FISCAL YEAR ENDING:

INCOME:		MARCH 31/66	MARCH 31/67	MARCH 31/68	MARCH 31/69	MARCH 31/70
1801	Minister's Office	\$ 23,526.74	\$ 20,551.14	\$ 25,386.66	\$ 20,208.72	\$ 27,476.36
1802	General Administration	366,506.18	389,716.44	452,076.04	583,214.28	644,018.57
1803	Advisory Board & Committees	381.15	511.28	819.47	827.30	771.45
1804	Technical Division	515,723.68	573,258.13	526,243.94	519,932.75	795,147.54
1805	Registration Division	143,785.99	155,169.05	179,985.47	180,949.47	207,097.62
1815	Alberta Forest Service - Forest Administration Branch	2,245,552.52	2,377,315.12	2,797,285.72	3,036,168.67	3,646,605.34
1816	Alberta Forest Service - Forest Management Branch	578,054.92	736,811.95	795,613.56	791,844.37	626,331.82
1817	Quota Reforestation	—	—	287,915.69	170,094.75	99,528.66
1818	Silviculture	—	—	—	—	403,915.55
1819	Eastern Rockies Forest Conservation Board	67,580.59	71,795.55	80,382.27	92,363.97	77,127.08
1820	Forest Land Use	—	—	—	—	197,320.89
1821	Alberta Forest Service - Forest Protection Branch	2,696,613.89	2,833,724.13	2,394,111.41	2,475,421.86	3,086,231.79
1822	Forest Fire Control	—	—	—	—	328,214.45
1823	Forest & Prairie Fires Suppression	602,903.79	1,548,034.82	2,382,731.84	5,472,305.52	2,671,020.80
1824	Alberta Forest Service - Forest Surveys Branch	348,828.43	356,171.85	470,068.35	524,282.76	—
1825	Alberta Forest Service - Aircraft Operations	693,088.14	661,689.90	618,903.30	498,104.29	620,212.73
1826	Alberta Forest Service - Radio Branch	456,940.52	453,788.63	511,565.13	502,869.42	551,165.79
1828	Alberta Forest Service - Forestry Training School	142,937.28	237,956.77	226,504.17	208,283.31	259,204.33
1829	Junior Forest Rangers	25,355.07	33,352.77	43,372.12	40,717.06	51,939.05
1835	Fish and Wildlife Division	1,092,200.21	1,307,432.49	1,541,022.76	1,578,127.99	1,797,101.78
1836	Destruction of Pests	25,518.86	22,620.34	15,903.31	3,421.90	3,679.37
1845	Lands Division	861,861.57	943,694.37	1,096,494.73	1,195,674.60	1,331,169.74
1846	Provincial Parks	1,287,838.52	1,749,392.82	1,987,251.91	1,970,786.53	2,414,374.62
1847	Rural Recreational Grants	22,521.32	89,726.50	51,969.07	—	—
		\$12,197,719.37	\$14,562,714.05	\$16,485,606.92	\$19,865,599.52	\$19,839,655.33
CAPITAL:						
1881	Aerial Photography & Forest Inventory	18,984.40	13,324.57	40,645.04	27,396.00	34,973.04
1882	Forestry Dominion-Provincial Access Roads Agreement and SW 47,55/61-62	652,268.82	653,725.25	944,180.65	778,533.11	678,395.22
1883	Land Purchase	196,638.15	141,803.59	37,238.12	65,000.44	23,700.00
1885	Lands & Grazing Development	—	—	119,424.27	37,897.21	95,847.90
1886	Parks Development	—	—	261,846.57	120,585.34	131,122.72
		867,891.37	808,853.41	1,403,334.65	1,029,412.10	964,038.88

EDUCATION AND INFORMATION

C.E. HAGLUND, SUPERVISOR

During the year, a total of 36 prepared news releases were processed by the Education and Information Division, a large number of personal interviews were granted to various news media, especially during the season of greatest forest fire danger, and division personnel participated in a number of radio and television programs. As usual, a constant stream of written and verbal requests for information from the general public was handled by the division.

Publications produced by the division during the year were as follows:

"Careers in Forestry"	Revised
"Alberta Forest Inventory"	Revised
"Trees of Alberta"	New
"Alberta Junior Forest Ranger"	Revised
"Alberta Forests"	Reprinted
"Parks and Recreation Areas - Foothills Region"	Reprinted
"Alberta Guide to Range Condition and Stocking Rates" Bulletin	Revised
"Range, Its Nature and Use"	Revised
"1970 Summary of Game Regulations"	New
"1970 Angling Regulations Summary"	New
"Upland Game Birds of Alberta"	New
"1969 Fish Planting List"	New
"Hints for Guides"	New
"Mule Deer Jaw Poster"	New
"Hunting with Permission Only" Poster	New
"1968/69 Annual Report"	New

The division continued to satisfy the informational needs of the department by providing written material, artwork and photographs. The supervisor conducted a four-day public information course at the Hinton Forestry School at which all Forest Superintendents received information on the need for the public information officer function in their individual Forests, and the best methods of conducting such a program.

The Hunter Training — Conservation Program conducted by the division continued to expand as it became better known to the public. To better supply the increased demand for division personnel to assist in the training of instructors and students, the Artist position was reclassified to Conservation Education Officer, and the incumbent assisted the Hunter Training - Conservation Officer in the discharge of his varied duties.

HUNTER TRAINING

STUDENT COURSES

1st. April 1969 – 31st. March 1970

LOCATION	TOTAL # COURSES	SUCCESSFUL STUDENTS	UNSUC. STUDENTS
Barrhead	1	59	4
Bon Accord	1	32	2
Breton	1	21	16
Brooks	1	7	9
Bruderheim	1	29	1
Calgary	5	42	20
Camrose	1	19	—
Cardston	1	21	—
Clandonald	1	17	7
Claresholm	1	42	—
Cold Lake (Medley)	4	130	—
Del Bonita	1	20	—
Duchess	1	16	16
Edberg	1	19	10
Edmonton	21	610	37
Fort McMurray	1	13	2
Fort Saskatchewan	1	34	1
Grande Prairie	2	105	30
Innisfail	1	16	2
Lac La Biche	2	24	—
Lacombe	1	63	2
Lethbridge	3	31	14
Namoo	3	87	2
Olds	1	10	5
Penhold	1	13	2
Red Deer	4	41	19
Rocky Mountain House	1	18	3
Sherwood Park	2	29	4
Standard	1	10	4
Taber	1	10	7
Vegreville	1	7	—
Wetaskiwin	1	11	4
	69	1,706	222

HUNTER TRAINING

INSTRUCTORS COURSES

1st. April 1969 – 31st. March 1970

LOCATION	TOTAL # COURSES	SUCCESSFUL INSTRUCTOR	UNSUC. INST.
Cardston	1	4	—
Claresholm	1	15	—
Cold Lake	2	19	—
Del Bonita	1	2	—
Edmonton	5	73	1
Fairview	1	17	—
Innisfail	1	8	—
Lethbridge	1	17	—
Lougheed	1	14	—
Namoo	1	15	—
Pincher Creek	1	6	—
Provost	1	11	—
Red Deer	2	14	—
Sherwood Park	1	2	—
Two Hills	1	9	—
Valleyview	1	8	2
Vegreville	1	12	—
	23	257	3

PERSONNEL

REPORT OF THE PERSONNEL OFFICER *D.E. MASSIG*

In this, the 21st Annual Report, we will endeavor not only to supply certain pertinent data concerning the personnel function in Lands and Forests, but also cover certain areas pertaining to the Central Personnel Office. This is necessary due to the changes that have already taken place and will be taking place in the future.

On October 1, 1969 the Central Personnel Office took the first major step towards decentralization of the personnel function to departments. At that time the Central Office was reorganized into the following Divisions:

1. **Employee Relations Division** — Responsible for contract negotiation and administration, pay and fringe benefit research, classification standards for the bargaining unit and some of the excluded group.
2. **Departmental Services Division** — Responsible for recruitment, selection consulting, classification allocation, consulting on decentralized classification, and career promotion. Two further areas to be developed in this division are: executive compensation and conditions of service and a temporary employment service.
3. **Organization Development Division** — Responsible for conducting training courses and administering educational support regulations. Manpower planning and organizational and system consulting are two additional areas to be developed at a later date.
4. **Research and Systems Development Division** — Responsible for establishment of management information system and controls, research and development projects, data processing co-ordination and systems developments, and internal administrative services.

A target date of approximately October 1, 1970 has been set for decentralization of certain functions to the various government departments. This decentralization will comprise of three main areas: recruitment and selection, classification allocation and decentralization of salary administration.

This delegation to departments will be accomplished in three distinct phases: phase I approximately October 1, 1970; phase II approximately one year later and phase III at a later date not as yet specified but predicted on the success of the earlier phases.

In order to ensure that abuses do not creep into the system and decisions are as uniform as possible among departments a system of post-auditing will be developed. This will service not only to accomplish the above but also will be of definite assistance to departments in the initial stages. If, as a result of the post audit function, certain departments are found not to be administering the delegated areas properly they will be given every assistance necessary to overcome the difficulty. If this is not sufficient their delegation will be revoked by Treasury Board and handled in its entirety by the Central Personnel Office. It is very doubtful that this action will ever be necessary but the govern-

ment must retain this right of revocation to ensure that sound principles of personnel administration are maintained for the public service as a whole.

RECRUITMENT AND SELECTION

Recruitment and selection continued at its normal level during the year. There were 238 competitions conducted within the department comprised of the following: 102 departmental competitions, 35 promotional competitions, and 101 open competitions. There were 210 new appointments made throughout the year. A total of 181 employees left the department; of these, a number were transferred or promoted to other departments. Twelve retirements were included in the terminations.

University recruitment was conducted at the Universities of Alberta, British Columbia and New Brunswick. The University of Alberta is commencing a four-year Bachelor of Forestry program in the fall of 1970 and by 1974 we will be able to recruit graduates of this program for the Alberta Forest Service.

Interviews were also held at the Forest Technology School at Hinton as well as the Saskatchewan Institute of Applied Arts and Sciences in Saskatoon. As a result a number of new officers were appointed to the Forestry, Fish & Wildlife and Parks Divisions.

The Junior Forest Ranger Program continued to interest young men from all areas of the province. Approximately 200 applications were received. Sixty young men were selected to fill positions at the camps in the Clearwater-Rocky, Crowsnest, Edson and Grande Prairie Forests.

The employment of summer assistants for work on various projects declined slightly this year. Wherever possible preference was given to employ personnel who were enrolled in the resources area at the University of Alberta and the Northern Alberta Institute of Technology.

CLASSIFICATION AND PAY

Due to new programs and increased work load, new positions were established in Fish & Wildlife, Forestry, Lands and Parks.

The last year of the two year Collective Agreement with the Civil Service Association commenced on January 1, 1970 with an approximate average salary increase of 7%. This contract expires December 31, 1970 at which time a new full Collective Agreement will be negotiated.

Throughout the year a number of classification reviews were completed. There were a total of four Classification Appeals during the year; of these, two were reclassified and two were rejected.

EMPLOYEE RELATIONS

During the year twelve employees retired. Mr. James C. Cherrey retired September 1969 after completing more than 40 years of government service and Mr. Albert Taylor retired in January 1969 after completing 39 years of service.

The following employees retired with 20 or more years service: William D. Gilbert, Herbert E. Hadley, Rineholdt F. Krause, Edward Langford, and Reginald D. Loomis. Other retirements were Erich E. Andersen, Thomas H. Askin, James Gaetz, Irene Gibson and Cecile E. LaPierre.

PERSONNEL

MINISTER'S OFFICE

- 1 Minister
- 1 Secretary
- 2

- 3 Clerk Stenographers
- 4 Clerk Typists
- 5 Clerks
- 1 Public Land Appraiser
- 2 Foresters

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DEPUTY MINISTER'S OFFICE

- 1 Deputy Minister
- 1 Solicitor
- 1 Departmental Personnel Officer
- 1 Personnel Admin. Officer
- 1 Resources, Info., & Publicity Supv.
- 1 Information Officer
- 1 Conservation Training Officer
- 1 Illustrator
- 1 Clerk
- 3 Clerk Stenographers
- 6 Clerk Typists

18

REGISTRATION DIVISION

- 2 Administrative Officers
- 1 Clerk Stenographer
- 4 Technologists
- 32 Clerks
- 2 Clerk Typists
- 1 Automotive Equip. Operator
- 1 Library Technician

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FORESTRY DIVISION

Forest Administration Branch

ACCOUNTS BRANCH

- 4 Accountants
- 3 Bookkeeping Machine Operators
- 1 Comptometer Operator
- 1 Duplicating Equip. Operator
- 1 Automotive Equip. Operator
- 2 Stores Clerks
- 34 Clerks
- 3 Clerk Stenographers
- 19 Clerk Typists

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TECHNICAL DIVISION

- 4 Technical Officers
- 1 Land Surveyor
- 56 Technologists
- 3 Duplicating Equip. Operators
- 8 Aerial Photo. Processors

- 1 Forestry Director
- 1 Administrative Officer
- 42 Foresters
- 25 Clerks
- 10 Clerk Stenographers
- 11 Automotive Mechanics
- 10 Senior Lookouts (Permanent)
- 15 Lookouts (Permanent)
- 149 Lookouts (Seasonal)
- 20 Clerk Typists
- 16 Automotive Equip. Operators III
- 9 Road Foremen
- 15 Radio Operators
- 10 Carpenters
- 110 Forestry Officers I
- 101 Forestry Officers II & III
- 4 Airport Keepers
- 11 Forest Warehousemen
- 1 Technologist

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TIMBER MANAGEMENT BRANCH

10	Foresters
1	Administrative Officer
1	Timber Scaling Supv.
4	Timber Auditors
9	Clerks
4	Clerk Stenographers
4	Clerk Typists
7	Technologists

40

FOREST LAND USE BRANCH

9	Foresters
3	Technologists
2	Clerk Typists
2	Clerks
1	Clerk Stenographer
1	Forestry Land Use Co-ordinator

18

FOREST SILVICULTURE BRANCH

3	Foresters
1	Clerk Typist
1	Clerk

5

CONSTRUCTION & MAINTENANCE
BRANCH

2	Maintenance Supervisors
1	Forest Equipment Artisan
2	Plumbers
2	Electricians
2	Clerk Stenographers
1	Clerk Typist
2	Foresters
1	Sign Painter & Designer
1	Forestry Road Supervisor
3	Clerks
1	Mechanical Equip. Shop Supv.
3	Technologists
1	Engineer
4	Carpenters
1	Spray Painter
1	Labourer
1	Maintenance Worker
2	Automotive Mechanics
1	Road Foreman

2	Automotive Equip. Operators
3	Engine Generator Technicians

37

FOREST FIRE CONTROL BRANCH

4	Foresters
1	Fire Weather Officer
3	Aircraft Dispatchers
3	Technologists
1	Fire Control Dispatcher
2	Clerks
2	Clerk Stenographers
1	Meteorologist
1	Forestry Warehouseman
2	Stockkeepers

20

RADIO DIVISION

1	Communications Liaison Officer
3	Radio Operators
1	Clerk Typist
1	Clerk
1	Communication Technician

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FORESTRY TRAINING SCHOOL

1	F.T.S. Superintendent
7	Instructors
1	Clerk
1	Clerk Typist
1	Clerk Stenographer
1	Stockkeeper

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FISH & WILDLIFE DIVISION

1	Fish & Wildlife Director
1	Fish & Wildlife Administrator
1	Administration Officer
1	Wildlife Research Centre Supt.
3	Fish & Wildlife Research Biologists
4	Biologists I
14	Biologists II
2	Biologists III
2	Biologists IV
1	Biologist II (Extra Assistance)

FISH & WILDLIFE DIVISION (cont'd)

13	Fish & Wildlife Officers I
46	Fish & Wildlife Officers II
8	Fish & Wildlife Officers III
1	Fish & Wildlife Officer IV
9	Fish & Wildlife Technicians
1	Laboratory Technician
2	Technologists
1	Wildlife Culturist I
1	Wildlife Culturist II
1	Fish Culturist I
3	Fish Culturists II
1	Fish Culturist III
1	Fish Culturist IV
1	Automotive Mechanic
1	Clerk
37	Clerk Stenographers
26	Clerk Typists
183	

EASTERN ROCKIES FOREST
CONSERVATION BOARD

2	Foresters
2	Technologists
1	Clerk Stenographer
5	

LANDS DIVISION

1	Director
7	Administrative Officers
2	Agrologists
28	Public Lands Appraisers
11	Grazing Reserve Attendants

44	Clerks
9	Clerk Stenographers
40	Clerk Typists

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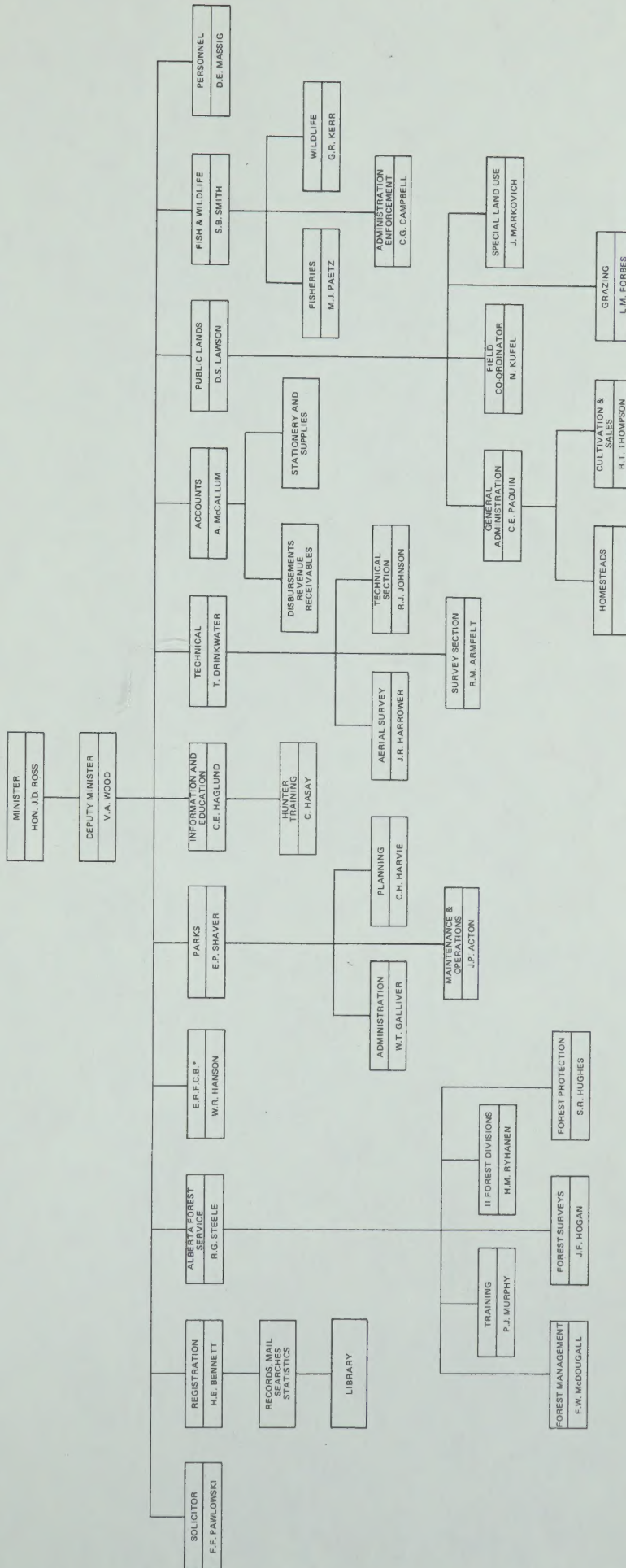
PROVINCIAL PARKS DIVISION

1	Director of Parks
1	Parks Planning Supervisor
1	Parks Management Supervisor
3	Parks Planners
1	Engineer
1	Geographer
1	Landscape Architect
1	Administrative Officer
1	Maintenance Supervisor
3	Maintenance Workers
19	Parks Officers I
10	Parks Officers II
5	Parks Officers III
1	Parks Officer IV
1	Forestry Officer III
6	Automotive Equipment Operators
3	Automotive Mechanics
6	Technologists
2	Stockkeepers
4	Carpenters
1	Electrician
1	Painter
1	Museum Display Artist
3	Clerks
4	Clerk Stenographers
4	Clerk Typists

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TOTAL = 1,333

ORGANIZATION DEPARTMENT OF LANDS AND FORESTS



* Eastern Rockies Forest Conservation Board
Secretary: J.P. Hourigan

